

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>		1. SOLICITATION NO. W917PM-09-R-0009	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 20-Nov-2008	PAGE OF PAGES 1 OF 132
IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.					
4. CONTRACT NO.		5. REQUISITION/PURCHASE REQUEST NO.		6. PROJECT NO.	
7. ISSUED BY AFGHANISTAN ENGINEER DISTRICT US ARMY CORPS OF ENGINEERS KABUL APO AE 09356		CODE W917PM	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE See Item 7		
TEL:		FAX:	TEL:		
FAX:					
9. FOR INFORMATION CALL:	A. NAME TIMOTHY D ROBBINS		B. TELEPHONE NO. <i>(Include area code)</i> <i>(NO COLLECT CALLS)</i>		
SOLICITATION					
NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".					
10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS <i>(Title, identifying no., date):</i> Titan Dara Road The base bid for this project includes the survey, design and construction of an approximately 6 km two lane un-surfaced roadw ay from Titan Dara (34.989655 N Latitude, 70.401865 E Longitude) to a point identified by coordinates 35.000359 N Latitude, 70.452778 E Longitude in the Nuristan and Kunar Provinces of Afghanistan. Magnitude of Construction : \$1,000,000.00 to \$5,000,000.00 If the proposals are hand carried deliver to the US Army Corps of Engineers; House 1, Street 1, West Wazir Akbar Khan (behind Amani High School, Kabul Afghanistan, prior to the time and date specified for receipt of proposals. .					
11. The Contractor shall begin performance within <u>7</u> calendar days and complete it within <u>355</u> calendar days after receiving <input type="checkbox"/> award, <input checked="" type="checkbox"/> notice to proceed. This performance period is <input checked="" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. <i>(See section 00800 _____.)</i>					
12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				12B. CALENDAR DAYS	
13. ADDITIONAL SOLICITATION REQUIREMENTS: A. Sealed offers in original and <u>2</u> copies to perform the work required are due at the place specified in Item 8 by <u>05:00 PM</u> <i>(hour)</i> local time <u>30 Dec 2008</u> <i>(date)</i> . If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due. B. An offer guarantee <input type="checkbox"/> is, <input checked="" type="checkbox"/> is not required. C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference. D. Offers providing less than <u>120</u> calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.					

SOLICITATION, OFFER, AND AWARD (Continued) <i>(Construction, Alteration, or Repair)</i>										
OFFER (Must be fully completed by offeror)										
14. NAME AND ADDRESS OF OFFEROR <i>(Include ZIP Code)</i>					15. TELEPHONE NO. <i>(Include area code)</i>					
<div style="border: 1px solid black; height: 40px; width: 100%;"></div>					16. REMITTANCE ADDRESS <i>(Include only if different than Item 14)</i> See Item 14					
CODE		FACILITY CODE								
17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. <i>(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)</i>										
AMOUNTS		SEE SCHEDULE OF PRICES								
18. The offeror agrees to furnish any required performance and payment bonds.										
19. ACKNOWLEDGMENT OF AMENDMENTS <i>(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)</i>										
AMENDMENT NO.										
DATE										
20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER <i>(Type or print)</i>					20B. SIGNATURE				20C. OFFER DATE	
AWARD (To be completed by Government)										
21. ITEMS ACCEPTED:										
22. AMOUNT		23. ACCOUNTING AND APPROPRIATION DATA								
24. SUBMIT INVOICES TO ADDRESS SHOWN IN <i>(4 copies unless otherwise specified)</i>				ITEM	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)					
26. ADMINISTERED BY			CODE		27. PAYMENT WILL BE MADE BY: CODE					
CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE										
<input type="checkbox"/> 28. NEGOTIATED AGREEMENT <i>(Contractor is required to sign this document and return _____ copies to issuing office.)</i> Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.					<input type="checkbox"/> 29. AWARD <i>(Contractor is not required to sign this document.)</i> Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.					
30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN <i>(Type or print)</i>					31A. NAME OF CONTRACTING OFFICER <i>(Type or print)</i>					
30B. SIGNATURE			30C. DATE		TEL: EMAIL:			31B. UNITED STATES OF AMERICA BY		
								31C. AWARD DATE		

Section 00010 - Solicitation Contract Form

SECTION 00010

SECTION 00010

PROPOSAL SCHEDULE

The Contractor shall provide a price for all items. The Government will evaluate the Contractor's entire proposal to determine which proposal technically acceptable and lowest price to the Government.

No.	Description	Qty	Unit	Unit Price	Total Amount
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0001. Base Proposal:

0001AA DBA Insurance:	1	LS	xxx	\$_____
0001AB Survey:	1	LS	xxx	\$_____
0001AC Road and Structure Design:	1	LS	xxx	\$_____
0001AD Mobilization/Demobilization	1	LS	xxx	\$_____
0001AE Roadway Un-surfaced Construction	1	LS	xxx	\$_____
0001AF As-Built Drawings	1	LS	xxx	\$_____

Total Base Bid Items

\$_____

(total of all above costs - includes design and construction)

2. Optional Proposal:

0002AA	Roadway Survey, Design & Un-surfaced Construction KM 6+00 to KM 12+00	1	LS	xxx	\$_____
0002AB	150 mm Gravel Surface KM 0+00 to KM 3+00	1	LS	xxx	\$_____
0002AC	150 mm Gravel Surface KM 3+00 to KM 6+00	1	LS	xxx	\$_____
0002AD	150 mm Gravel Surface KM 6+00 to KM 9+00	1	LS	xxx	\$_____
0002AE	150 mm Gravel Surface KM 9+00 to KM 12+00	1	LS	xxx	\$_____

Total Optional Bid Items

\$_____

(total of all above costs - includes design and construction)

Titan Dara Road
Provinces, Afghanistan

Kunar and Nuristan

Total Price Proposal
(Base & Options)

\$ _____

PROPOSAL SCHEDULE NOTES

1. Offeror shall submit prices on all items.
2. Only one contract for the entire schedule will be awarded under this solicitation. This project will be awarded as a lump sum contract. This Proposal Schedule is an accounting tool for allocating funds to applicable budget.
3. Costs associated with this project shall include design and construction costs for site, facilities and utilities preparation but, no less than all items as shown in proposal schedule.
4. DESIGN COSTS DEFINITION: Design costs shall consist of preparation of master planning and site designs, plans, drawings, and specifications.
5. NON-DESIGN COSTS DEFINITION: Non-design costs shall include the following: initial site visits; field, topographic, property, boundary, utility, and right-of-way surveys; subsurface explorations and borings; feasibility, functional, and economic studies and other investigations; flow gauging and model testing; preparation or verification of as-built drawings; preparation of general and development criteria; preparation of general and feature design memoranda; services of consultants where not specifically applied to the preparation of working drawings or specifications; construction phase services; models, renderings, or photographs of completed designs; reproduction of designs for review purposes; and travel and per diem allowances in connection with the above excludable services.
6. SEPARATION OF WORK: All work for Design and Construction shall be included in all Proposal Items.
7. EVALUATION OF OPTIONS: The award will be made to the offeror whose proposal is technically acceptable and has the lowest price offer. For pricing purposes, the Government will evaluate both the Base Proposals and Option Proposals. The Government is not obligated to exercise the options.
8. EXERCISE OF OPTIONAL BID ITEMS: Optional bid items (if any) may, at the option of the Government, be added to the contract at any time within 120 calendar days after award of Base Proposal.

END OF SECTION

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
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INSTRUCTIONS TO OFFEROR

SECTION 00100
Bidding Schedule/Instructions to Offerors
W917PM-09-R-0009

PREPROPOSAL CONFERENCE WILL BE HELD 29 November 2008, 2:00 PM KABUL TIME.
Offerors, who plan to participate, please email me at Stella.Lejeune@tac01.usace.army.mil, no later than
26 November 2008 at 5:00PM KABUL TIME.

Estimated cost range of this project is between **\$1,000,000.00 and \$5,000,000.00.**

NOTICE: Return Section 00600, "Representations and Certifications" and requested information from Sections 00010 "Solicitation Contract Form" and 00100 "Bidding Schedule/Instructions to Bidders", with your proposal. All amendments, if any, must be acknowledged and returned with the proposals. If you do not return these sections you will be considered **Non-Responsive.**

Request for information must be directed to the person listed in Item 9 of the 1442. Inquiries and request that are directed to any other person may not be relayed to the proper person and therefore, may not be answered. Please email all questions to Stella.LeJeune@usace.army.mil.

Question must be submitted prior to **20 December 2008**. Questions after that date may not be answered.

All proposals must be delivered to: **U.S. Army Corps of Engineers, House #1 Street #1, West Wazir Akbar Khan (Behind Amani High School), Kabul, Afghanistan, Attn: Stella LeJeune, prior to 5:00pm, Kabul Time, 30 December 2008 for receipt of proposals.** Due to heightened security conditions, access to the building is controlled by security. Your packages will be opened and checked at the gate by the security guards. **Electronic proposals will not be accepted.**

Contractors are advised to take note of Section "00800", paragraph AI, Other Changes in contract Performance; of this Solicitation.

Section 100 – 52.222-23

Section 600 – 52.222-22

Section 700 – 52.222-21, 26, 27, 29, 35, 36, 37

“Only applicable if contractor recruits personnel within the US.”

252.247-7024 “Only applicable if contractor gave a negative response to 252.247-7022.”

52.204-3, 52.232-38, 52.204-6, 252.204-7001, 52.232-34

“Only applicable to contractors that are not to be registered in the CCR database.”

52.232-33, 252.204-7004

“Only applicable to contractors that are to be registered in the CCR database.”

252.229-7000, 252.229-7001

“Only applicable if contractor is a foreign concern.”

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY REFERENCE

52.204-6	Data Universal Numbering System (DUNS) Number	APR 2008
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991
52.215-1	Instructions to Offerors--Competitive Acquisition	JAN 2004
52.217-3	Evaluation Exclusive Of Options	APR 1984
52.217-4	Evaluation Of Options Exercised At The Time Of Contract Award	JUN 1988
52.217-5	Evaluation Of Options	JUL 1990
52.236-28	Preparation of Proposals--Construction	OCT 1997
252.204-7001	Commercial And Government Entity (CAGE) Code Reporting	AUG 1999

CLAUSES INCORPORATED BY FULL TEXT

52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)--EFARS

(a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

- (1) Obviously misplaced decimal points will be corrected;
- (2) Discrepancy between unit price and extended price, the unit price will govern;
- (3) Apparent errors in extension of unit prices will be corrected;
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

CLAUSES INCORPORATED BY FULL TEXT

52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data, offerors may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Commercial item exception. For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--

(A) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities;

(B) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market;

(C) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall prepare and submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

“Please contact the Office of Federal Contract compliance Programs as appropriate.”

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Afghanistan.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.233-2 SERVICE OF PROTEST (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

Titan Dara Road
Provinces, Afghanistan

Kunar and Nuristan

US Army Corps of Engineers, House 1, Street 1, West Wazir Akbar Khan (behind Aman High School), Kabul, Afghanistan.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995) – ALTERNATE I (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) An organized site visit has been scheduled for--
NA

(c) Participants will meet at--
NA

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://farsite.hitl.af.mil>

(End of provision)

Titan Dara Road
Provinces, Afghanistan

Kunar and Nuristan

BID SCHEDULE/INSTRUCTIONS
SECTION 00110
Titan Dara ROAD DESIGN-BUILD
LOW-PRICED, TECHNICALLY ACCEPTABLE
PROPOSAL PREPARATION

1. INQUIRIES

Perspective offerors should submit inquiries related to this solicitation by writing or calling the following (collect calls will not be accepted):

All questions will be submitted in writing by letter or e-mail to:

U.S. Army Corps of Engineers (USACE)
Afghanistan Engineer District (AED)
Qalaa House, Attention: Stella M. LeJeune, Kabul, Afghanistan
E-MAIL ADDRESS: Stella.M.Lejeune@usace.army.mil

Please include the solicitation number, and project title with your questions. Written inquiries must be received by this office not later than 4 calendar days prior to the date set for receipt of offers.

Oral explanations or instructions are not binding. Any information given to an offeror which impacts the solicitation and/or offer will be given in the form of a written amendment to the solicitation.

As this is a competitive negotiation acquisition, there is no public bid opening and no information will be given out as to the number of offerors or the results of the competition until all awards are made.

2. DIRECTIONS FOR SUBMITTING PROPOSALS

Offers must be in sealed envelopes/packages, marked and addressed as follows:

MARK PACKAGES:
Solicitation No. W917PM-09-R-0009
Offer Closing Date: **(30 December 2008)**
Offer Closing Time: 5:00 PM
(LOCAL KABUL TIME)

ADDRESS PACKAGES TO:

U.S. Army Corps of Engineers (USACE)
Afghanistan Engineer District (AED)
Qalaa House, Attention: **(Stella M. LeJeune)**
Kabul, Afghanistan

Special Instruction Pertaining to Hand Carried Offers: Hand-carried offers must be delivered to the USACE AED offices, Qalaa House, Kabul, Afghanistan. Offers who desire to hand-deliver their offers notify the Contract Specialist in advance in order to be met at the entrance gate to Qalaa House Compound.

3. PREPROPOSAL CONFERENCE / SITE VISIT

A Pre-proposal Conference will be held on 29 November 2008, 2:00 PM Kabul time, at U. S. Army Corps of Engineers, House #1, Street #1, West Wazir Akbar Khan (behind Amani High School), Kabul, Afghanistan. Attendees will be limited to one (1) representative per company only. Each representative is required to show a picture identification to be allowed access to the compound. Interested companies are required to e-mail: Stella. M. LeJeune@usace.army.mil, with the name of their representative by 5:00

PM, 26 December 2008. Company representatives whose names are not on the list will not be allowed access to the compound.

The Site Visit shall be held at the same time and location.

IMPORTANT NOTES. (1) Remarks and explanations addressed during the conference shall not qualify or alter the terms and conditions of the solicitation. (2) The terms and conditions of the solicitation remain unchanged unless the solicitation is formally amended in writing.

4. TELEGRAPHIC OFFERS - - TELEGRAPHIC OFFERS ARE NOT ACCEPTABLE.

However, offers may be withdrawn by written or telegraphic notice. Any telegram to withdraw an offer sent to this office must be received in the office designated in the Request for Proposal (RFP) for receipt of offers not later than the exact date and time set for receipt of proposals. A telegraphic withdrawal of an offer received in such office by telephone from the receiving telegraph office not later than the exact date and time set for receipt of proposals shall be considered. However, the telephone message shall be confirmed by the telegraph company by sending a copy of the written telegram that formed the basis for the telephone call. The written telegram shall be sealed in an envelope by a proper official and sent to the office designated in the RFP for receipt of offers. The official shall write on the envelope (1) the date and time of receipt and by whom, and (2) the number of the RFP, and shall sign the envelope. The offeror is responsible to inform the telegraph company of these requirements. No one from this office will be dispatched to the local telegraph office to pick up any telegram for any reason.

5. FACSIMILE OFFERS

Facsimile offers, modifications thereto, or cancellations of offers will not be accepted.

6. PROPOSAL SUBMISSION REQUIREMENTS AND INSTRUCTIONS

a. REQUIREMENT FOR SEPARATE PRICE AND TECHNICAL PROPOSALS.

(1) Each Offeror must submit both a Price Proposal and a Technical Proposal. The Price Proposal and the Technical Proposal must be submitted as separate volumes. Ensure that the outside of each separate volume is clearly marked to indicate its contents; and the identity of the offeror. Additionally, clearly identify the "original" cost/price proposal and the "original" technical proposal on the outside cover.

(2) Both the Price Proposal and the Technical Proposal must be received by the closing date and time set for receipt of proposals.

(3) No dollar amounts from the Price Proposal are to be included in the Technical Proposal.

(4) All information intended to be evaluated as part of the Technical Proposal must be submitted as part of the Technical Proposal. Do not cross-reference similar material in the Price Proposal, or vice versa. Also, do not include links to websites in lieu of incorporating information into your proposal.

(5) Do not include exceptions to the terms and conditions of the solicitation in either the technical or price proposal. Should the offer include any standard company terms and conditions that conflict with the terms and conditions of the solicitation, the offer may be determined "unacceptable" and thus ineligible for award. Should the offeror have any questions related to specific terms and conditions, these should be resolved prior to submission of the offer. Notwithstanding the above, the Offeror must clearly describe in the Proposal Cover Sheet submitted with the Price Proposal any exceptions to the contractual and/or technical terms and conditions of the solicitation contained in the Offer.

b. DISCUSSIONS. The Government does not intend to enter into discussions with offerors prior to determining those contractors within the competitive range, in accordance with FAR 52.215-1, Instructions to Offerors—Competitive Acquisitions, Alternate I.

c. COST OR PRICING DATA. Offerors are not required to submit Cost or Pricing Data with their offers.

d. GENERAL INSTRUCTIONS.

(1) Submit only the hard-copy paper documents and the electronic files specifically authorized and/or required elsewhere in this section. Do not submit excess information, to include audio-visual materials, electronic media, etc.

(2) Use only 8 ½ by 11 inch paper for hard copy submissions, unless another paper size is specifically authorized elsewhere in this section for a particular submission. Do not use fold-outs (e.g., 11" x 14" or

11" x 17" sheets) unless specifically authorized in this section for a particular submission. Do not use a font size smaller than 10, an unusual font style such as script, or condensed print for any submission. All page margins must be at least 1 inch wide, but may include headers and footers.

(3) The preferred method for assembling your proposals is to use three-ring binders; however, the use of pressboard or other report covers with compression or other type fasteners is acceptable. Do not use spring clamps or exceed the recommended capacity of the fastener or binder. Do not use plastic multi-hole/spiral binding systems, heat binding systems, or other systems which do not facilitate the ready insertion of additional pages.

(4) "Confidential" projects cannot be submitted to demonstrate capability unless all of the information required for evaluation as specified herein can be provided to the Government as part of the Offeror's technical proposal. Offerors that include in their proposals information that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, must be clearly marked in accordance with the instructions at FAR 52.215-1, "Instructions to Offerors— Competitive Acquisition", paragraph (e), "Restriction on disclosure and use of data".

(5) In the case of an Offeror that is part of a large, multi-segmented business concern, provide information directly pertaining to the specific segment of the business concern (i.e., the division, group, unit, etc.) that will perform work under the prospective contract.

(6) For submissions with page limitations, the pages will be counted as follows: One side of the paper is one page; information on both the back and front of one sheet of paper will be counted as two pages. Where authorized, fold-out pages (11" x 14" or 11" x 17") will count as one page. Pages furnished for organizational purposes only, such as a "Table of Contents" or divider tabs, are not included in the page limitation.

e. SPECIFIC INSTRUCTIONS FOR THE PRICE PROPOSAL

(1) Number of Sets of the Price Proposal. Submit the ORIGINAL and ONE additional hard copy sets of the Price Proposal.

(2) Size Restrictions and Page Limits. Use only 8 ½" x 11" pages. There are no page limits set for the price proposal. However, limit your response to information required by this solicitation. Excess information will not be considered in the Government's evaluation.

(3) Format and Contents of the Price Proposal and List of Tabs. The Price Proposal shall be appropriately labeled as such and shall be organized as indicated in the following chart. Note: If the Offeror is not required to submit any information under a listed Tab in accordance with the instructions below, that tab can be omitted. However, do not renumber the subsequent tabs.

TAB CONTENTS OF THE PRICE PROPOSAL

#1 The Proposal Cover Sheet

#2 The SF 1442 and Acknowledgement of Amendments

#3 Section 00010, Pricing Schedule

#4 Representations, Certifications, and Other Statements of Offerors

#5 JV Agreement, if applicable.

(4) Detailed Submission Instructions for the Price Proposal

TAB 1: The proposal cover sheet is required by FAR 52.215-1(2) (c) (i)-(v) and must be submitted by all offerors. This provision, titled "Instructions to Offerors—Competitive Acquisition," and the format for the proposal cover sheet are furnished elsewhere in this section.

TAB 2: The SF 1442, Solicitation, Offer, and Award is to be completed by all Offerors and duly executed with an original signature by an official authorized to bind the company in accordance with FAR 4.102. Any and all amendments must be acknowledged by all Offerors in accordance with the instructions on the Standard Form 30, Amendment of Solicitation.

TAB 3: Section 00010 is to be completed in its entirety by all Offerors. See Sections 00010 with attached notes, for further instructions.

TAB 4: All Offerors must have electronically completed the annual representations and certifications on the "Online Representations and Certifications Application" (ORCA) website or respond with the completed representations / certifications found in the solicitation.. The offerors are responsible for ensuring that these on-line Representations and Certifications are updated as necessary to reflect changes, but at least annually to ensure that they are kept current, accurate and complete. Additionally, the offeror must also complete and return the "Representations, Certifications, and Other Statements of Offerors" included in the solicitation. If the offeror is a Joint Venture, all participants must separately complete both the ORCA Representations and Certifications.

TAB 5: If the Offeror is a Joint Venture (JV), include a copy of the JV Agreement. If a JV Agreement has not yet been finalized/approved, indicate its status. JV Agreements must clearly indicate the percentages of the JV participants, in particular the percent of the controlling party, and a clear delineation of responsibilities and authorities between the JV parties.

f. SPECIFIC INSTRUCTIONS FOR THE TECHNICAL PROPOSAL

(1) Number of Sets of the Technical Proposal. Submit the ORIGINAL and TWO (2) additional sets of the written Technical Proposal, with each set separately packaged.

(2) Format and Contents of the Technical Proposal and List of Tabs. The original and all copies of the technical proposal will be appropriately labeled as such. Each set shall be organized using the tabs specified in the following chart. Note: The main tabs directly correlate to the evaluation factors identified in Section 00120.

TAB CONTENTS OF THE TECHNICAL
PROPOSAL

Factor #1 EXPERIENCE

Factor #2 PERSONNEL

Factor #3 PAST PERFORMANCE

Factor #4 CAPACITY

(3) Page Limitations. See paragraphs 6.d.(2) and 6.d.(6) above for format and page count instructions. The following page limitations are established for each factor described above:

- . Factor #1, Experience – Limited to 5 pages (maximum of 5 forms)
- . Factor #2, Personnel – Limited to 1 page for each resume provided
- . Factor #3, Past Performance – No page limitation
- Factor #4, Capacity – Limited to three pages

Tables of content, proposal cover letters, and tabs between proposal information do not count toward any page limitations in the proposal.

(4) Detailed Submission Requirements for the Technical Proposal. The following is a detailed description of the information to be submitted under each TAB.

(i) TAB 1: FACTOR 1, EXPERIENCE: Demonstrate the experience of the offeror and/or the proposed team, including sub-contractors, on projects same/similar to that described in the solicitation for same/similar construction work. The projects submitted should also demonstrate that the offeror and/or the team have performed a same/similar type of construction at multiple sites simultaneously. The Contractor shall complete a minimum of three (3), but no more than five (5), "Experience Information" forms, attached at the end of this section, in response to this factor. All blocks must be filled in and all data should be accurate, current, and complete. All projects submitted must have been underway or completed within the last 3 years. At least one (1) of the projects provided must be valued at over \$3,000,000.

If any of the information required is not included in the form then the contractor will be considered non-responsive and evaluated as unacceptable.

(ii) **TAB 2: FACTOR 2, PERSONNEL:** The offeror must provide resume data for the following key personnel: Project Manager – Design, Project Manager - Construction, Safety Officer, Quality Control Manager, Senior Engineer, and Construction Superintendent. Resume information to be provided shall be limited to no more than one (1) page per person and shall include the following information as a minimum:

- . Name and title
- . Project assignment
- . Name of firm with which associated
- . Years experience with this firm and with other firms
- . Education degree(s), year, specialization, if applicable
- . Active professional registration, year first registered, if applicable
- . Other experience and qualifications relevant to same/similar work required under this contract. All key personnel shall have a degree in the field of work governed by the position they are assigned to and a minimum of five (5) years of professional experience in their field. For example, a Civil Engineer must have a degree in Civil Engineering and 5 years of professional civil engineering experience.

(iii) **TAB 3: FACTOR 3, PAST PERFORMANCE:** For the projects listed under Factor 1 – Experience, provide letters of recommendations, commendations and/or awards. The Contractor Performance Assessment Reporting System (to include ACASS, CCASS, and CPARS) will be utilized to validate past performance ratings on Department of Defense contracts, as well as any other past performance information the Government deems necessary to evaluate a contractor's past performance. The Government may contact references provided as part of Factor 1 – Experience for information regarding the offeror's past performance on the project and for the purposes of assessing and verifying the scope of the work performed. Offerors should provide accurate, current, and complete contact information for references provided in the project descriptions.

(vi) **TAB 6: FACTOR 6, CAPACITY:** The contractor shall list ALL current ongoing contracts, including contracts with AED. The list shall include the contract number, contract amount, original contract completion date, current official contract completion date, and the current progress. The contractor shall list the personnel assigned to each of those projects; see FACTOR 2, PERSONNEL for the titles of the key personnel. The contractor shall provide a narrative that explains how an additional contract will not negatively impact current contracts and how the current projects will not negatively impact this project if awarded to the contractor. The contractor shall provide a narrative that explains their capability and plan to implement an additional project and the resources available to them.

7. Proposal Cover Sheet PROPOSAL COVER SHEET

1. Solicitation Number:
2. The name, address, and telephone and facsimile numbers of the Offeror (and electronic address if available):
3. A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item. Statement to include any exceptions in technical or cost/price proposal or exceptions inherent in Offeror's standard terms and conditions.
4. Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the Offeror's behalf with the Government in connection with this solicitation:
5. Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.
8. **SOURCE SELECTION USING THE LOW-PRICED, TECHNICALLY ACCEPTABLE PROCESS.** An evaluation for acceptability will be performance on each proposal in accordance with FAR 15.101-2(b)(3). The proposal that provides the lowest price and is otherwise technically acceptable in all factors will be

selected for award. To be considered technically acceptable, no technical factor in the proposal may be determined to be unacceptable. The failure of a proposal to meet any of the factors will result in a technically unacceptable rating and preclude award. See also Section 00120.

EXPERIENCE INFORMATION

(To be completed by Contractor)

1. Contractor:

Name:

Address:

2. Contract /Task Order(TO) /Purchase Order (PO) Number:

3. Contract/TO/PO Dollar Value:

4. Contract/TO /PO Status: Active Complete

Completion Date (w/ extensions):

5. Project Title:

Location:

6. Project Description:

7. Project Owner or Project Manager for the Client – provide:

Name:

Address:

Telephone Number and E-mail:

SECTION 00120
ANA SITE-ADAPT DESIGN-BUILD
LOW-PRICED, TECHNICALLY ACCEPTABLE (LPTA)
PROPOSAL EVALUATION AND CONTRACT AWARD

1. ELIGIBILITY FOR CONTRACT AWARD. In accordance with the FAR, no contract shall be entered into unless the contracting officer ensures that all requirements of law, executive orders, regulations, and all other applicable procedures, including clearances and approvals, have been met. This includes the FAR requirement that no award shall be made unless the contracting officer makes an affirmative determination of responsibility. To be determined responsible, a prospective contractor must meet the general standards in FAR Part 9 and any special standards set forth in the solicitation.

2. SOURCE SELECTION USING THE LOW-PRICED, TECHNICALLY ACCEPTABLE PROCESS. An evaluation for acceptability will be performance on each proposal in accordance with FAR 15.101-2(b)(3). The proposal that provides the lowest price and is otherwise technically acceptable in all factors will be selected for award. To be considered technically acceptable, no technical factor in the proposal may be determined to be unacceptable. The failure of a proposal to meet any of the factors will result in a technically unacceptable rating and preclude award.

3. BASIS OF AWARD. Award will be made on the basis of the lowest evaluated price of proposals meeting or exceeding the acceptability standards for non-cost factors. Tradeoffs are not permitted. Proposals are evaluated for acceptability but not ranked using non-cost/price factors.

4. EVALUATION OF THE PRICE PROPOSALS

a. Price will be evaluated and considered but will not be scored or combined with other aspects of the proposal evaluation. The proposed prices will be analyzed for reasonableness. They may also be analyzed to determine whether they are realistic for the work to be performed, reflect a clear understanding of the requirements, and are consistent with the information provided by the Offeror. Additionally, all offers will be analyzed for unbalanced pricing.

b. The otherwise technically-acceptable, lowest-priced offeror may be required to confirm its price on either a CLIN, element, or total price basis, and/or provide additional information in support of their price, prior to contract award at the Government's request and discretion.

c. Other Award Factors: The Contracting Officer shall consider several factors in the selection process which are important, but not quantified, such as:

(1) Agreement by the offeror to all general and special contract provisions and clauses.

(2) Determination of responsibility of the contractor by the Contracting Officer in accordance with the provisions of the Federal Acquisition Regulation, Part 9.1. In order to be determined responsible, a prospective contractor must:

(a) Have adequate financial resources to perform the contract or the ability to obtain them.

(b) Be able to comply with the required or proposed delivery or performance schedule taking into consideration all existing commercial and Governmental business commitments.;

(c) Have a satisfactory performance record.

(d) Have a satisfactory record of integrity and business ethics.

(e) Have the necessary organization, experience, accounting and operational controls, and technical skills, or the ability to obtain them.

(f) Have the necessary production, construction, and technical equipment and facilities, or the ability to obtain them.

(g) Be otherwise qualified and eligible to receive an award under applicable laws and regulations.

5. EVALUATION OF THE TECHNICAL PROPOSAL. The Technical Proposal will be evaluated based on the following evaluation criteria:

a. FACTOR 1: EXPERIENCE: The Government will review the project experience of the offeror, including subcontractors, on projects provided in response to Section 00110, Factor 1. Offerors must meet all of the following minimum acceptability standards to receive a "GO" on this factor:

. Offeror must have at least three (3) projects that are same/similar to that of the construction work found in this solicitation; AND

. At least one (1) of the projects submitted must be valued at over \$3,000,000, and they must have been completed, or underway, within the last 3 years

Failure to demonstrate the minimally acceptability standards under this factor will result in a "NO GO" rating and possible elimination from further consideration for contract award.

b. **FACTOR 2: PERSONNEL:** The Government will review the resumes provided in response to Section 00110, Factor 2. Offerors must demonstrate all of the following minimum acceptability standards to receive a "GO" on this factor.

The offeror must demonstrate in all resumes that the key personnel proposed have:

- . a degree in the field of work governed by the position they are assigned to; AND
- . a minimum of five (5) years of professional experience in their field; AND
- . experience in construction contracts working in the position they are assigned to under this contract.

Failure to demonstrate the minimally acceptability standards under this factor will result in a "NO GO" rating and possible elimination from further consideration for contract award.

c. **FACTOR 3: PAST PERFORMANCE:** The Government will review the letters of reference submitted by the offeror in response to Section 00110, Factor 1, and may contact points of contacts listed on the "Experience Information" forms submitted under Factor 1. Offerors must demonstrate the following minimum acceptability standards to receive a "GO" on this factor:

- . All past or current references must recommend either hiring or using the offeror again for future work and/or reflects positive performance of the work requirements.

Failure to demonstrate the minimally acceptable criteria under this factor will result in a "Neutral" rating for this factor.

d. **FACTOR 6, CAPACITY:** The contractor's responses will be evaluated to determine if the contractor has additional capacity to handle the project. Offerors which can demonstrate reserve capacity for additional projects will receive a higher rating than those which appear to be at or near capacity.

6. GENERAL TECHNICAL CRITERIA

- a. Material omission(s) may cause the technical proposal to be rejected as unacceptable.
- b. Proposals which are generic, vague, or lacking in detail may be considered unacceptable. The offeror's failure to include information that the Government has indicated should be included may result in the proposal being found deficient if inadequate detail is provided.
- c. The Government cannot make award based on a deficient offer. Therefore, receipt of a "NO GO" determination of acceptability for any factor will make the offer ineligible for award, unless the Government elects to enter into discussions with that Offeror and all deficiencies are remedied in a revised proposal.

END OF SECTION

SECTION 00150

SECTION 00150

THE DESIGN-BUILD PROCESS

PART 1 - GENERAL:

I.1. DESIGN-BUILD (DB) PROCESS: The road shall be designed and built by a single design-build (DB) contractor. The DB contractor may be a single firm or a team of firms that includes registered Engineers either employed by or subcontracted to the DB contractor. Licensing jurisdiction of Engineers of record shall be verifiable. The DB contractor is the Architect/Engineer-of-Record, whether the DB contractor uses registered engineers employed by its firm or subcontracts with independent architectural and engineering firm(s). The DB contractor is solely liable for design errors and/or omissions and will be the designer on record.

I.2. OUTLINE DESCRIPTION OF THE DB PHASE: No work can begin on any phase of the process until an authorization Letter to Proceed for that phase is issued.

I.2.A. PROPOSAL PHASE: The Proposal Phase includes the period from the time from the issuance of the Request for Proposals (RFP) through the selection process and the final award of the DB contract. The proposals to be submitted include a Management/Technical Proposal, a Preliminary Design Proposal, and a Cost/Price Proposal. The contents and organization of the proposal is described in SECTION 00110 - PROPOSAL PREPARATION. The Government will evaluate and award the DB contract to a single Offeror based upon the criteria which are outlined in SECTION 00120 - PROPOSAL EVALUATION AND CONTRACT AWARD.

I.2.B. SURVEY & DESIGN PHASE: The successful DB contractor shall develop and submit for review four submittals, 15% survey, 50% design, 90% design and 100% final design. The DB contractor is encouraged to develop and submit multiple cost saving proposals for innovative design alternatives.

2.B.1. Part 1: The first submittal shall include: full topographical survey, with accurate existing horizontal and vertical layout, profiles, existing drainage structures, and cross sections, and drainage structure evaluations. A Pre-design meeting will be conducted to finalize and clarify technical information, and clarify other necessary information.

2.B.2. Part 2: The second submittal shall include, 50% complete drawings with accurate horizontal and vertical curves layout, profiles, cross sections, and specifications.

2.B.3. Part 3: The third submittal shall include all design services required to complete the 90% design. Design plan of 90% shall not begin until the 50% submittal is submitted for review and acceptance. This submittal stage shall include complete drawings with accurate horizontal and vertical curves layout, profiles, cross sections, specifications, design analysis and structure design plan and details, and all other requirements for completion of the road design. All comments from the 50% design shall be incorporated into the 90% design.

2.B.4. Part 4: The fourth submittal shall include all design services required to complete the third design submittal 100%. Design of 100% shall not begin until 90% submittal is submitted for review and acceptance. All comments from the 90% design shall be incorporated into the 100% design.

I.2.C. BUILD PHASE: The Build Phase will be initiated by an authorization letter. Only the

Administrative Contracting Officer (ACO) or Contracting Officer (KO) has the authority to issue the partial or full clearance for construction for each phase of the work. The authorization letter will be provided separately by the Contracting Officer for each phase of the work. The Government may give the DB Contractor authorization for the Build Phase for portions of the work following review and approval of the First Design Submittal. Weekly coordination meetings will be held at which, as a minimum, the DB Contractor's Project Manager, a representative of the Designer, the site Superintendent, and the Contractor's Quality Control Manager shall be present.

2.C.1. After the 50% design submittal (phase 1) is accepted by engineering branch, the field office will request the ACO to issue the partial clearance for construction for clearing, widening, grading and preparing the sub-grade work only.

2.C.2. After the 90% design submittal (phase 2), sub-grade compaction, sub-base and base materials are accepted by AED, the field office will request the ACO to issue another partial clearance for construction for placing sub-base and base courses.

2.C.3. After the 100% final design submittal (phase 3) is accepted by AED, the field office will request the ACO to issue a final full clearance construction for completing the road such as structures.

2.C.4. Prior to completion of the 90% and 100% submittals, the contractor may also submit a design plan for any particular structure with design calculations if required for review and acceptance. This separate design submittal shall physically identify the name of the structure (culvert, wadi crossing, retaining wall, etc) the location (station, coordinates) and detailed sections. After this stand alone design submittal is accepted by AED, the field office will request the ACO to issue another partial clearance for construction for that particular structure.

I.3. PROJECT SCHEDULE: The following is a suggested internal design schedule and is subject to modification by the Offeror to suit their particular method of operation. Overall time constraints are required and cannot be changed except by contract modification. Prospective offerors shall be required to submit a complete schedule for design and construction that meets or exceeds the overall time goals of the Government for this project.

I.3.A.	Notice to Proceed (NTP)	Following award of contract (upon written notification)
I.3.B.	Begin Survey Phase	Basic services pre-design meeting within 14 days from NTP
I.3.C	Survey Phase, Part 1 First Design Submittal Due (15% completion level)	30 days following NTP
I.3.D.	Begin Design Phase	Upon approval of survey
I.3.E.	Design Phase, Part 2 Second Design Submittal Due (50% completion level)	60 days following NTP
I.3.F.	Submittal Review Conference	Within 7 days after 50% (date & location TBD) submittal REVIEW is completed
I.3.G.	Authorization to Commence 90% Design Phase	Upon approval of second design submittal
I.3.H.	Build Phase authorization to commence	Upon approval of the corrected second design submittal
I.3.I.	Design Phase, Part 3 Third Design Submittal Due (90% completion level)	30 days from authorization for design phase, Part 2
I.3.J.	Submittal Review Conference	7 days after 90% (date & location TBD) submittal REVIEW is completed
I.3.K.	Design Phase, Part 4 Fourth Design Submittal Due (100% completion level)	Within 30 days following third review period
I.3.L.	Build Phase Authorization for	Upon approval of final submittal

	Remainder of Work	
I.3.M .	Total Design and Construction Period	355 days (performance period includes design and construction phases)

All days are in calendar days.

PART 2 - PRODUCTS: (NOT APPLICABLE)

PART 3 - EXECUTION: (NOT APPLICABLE)

--End of Section--

SECTION 00555**SECTION 00555****DESIGN CONCEPT DOCUMENTS****PART 1 - GENERAL:****1.1 GENREAL**

This section identifies documents issued with this RFP which establish the concept or basis for the project design. These requirements are minimum standards and may be exceeded by the Offeror. Deviations from these concepts and standards may be approved if considered by the Government to be in its best interests.

The extent of development of these requirements in no way relieves the successful Offeror from the responsibility of completing the design, construction documentation, and construction of the facility in conformance with applicable criteria and codes.

1.2 ENGINEERING AND DESIGN CRITERIA

General design requirements are set forth in this RFP herein. The Specifications Divisions 02 thru 16 are the primary specifications criteria for the design and construction of the project. No design criteria will be furnished by the Afghanistan Engineer District except that which may be required for design and is not available from commercial sources or from the Construction Criteria Base (CCB) or 'Techinfo' website located at <http://www.wbdg.org/ccb/>. The references within CCB must be obtained by the A/E if the criteria are required or desired. All design, unless otherwise specified, shall be based on nationally recognized industry standard, criteria, and practice.

1.3 APPENDIX DOCUMENTS

See Appendices for further technical requirements, criteria, and parameters that are a part of this contract.

1.4 SPECIFICATIONS

Specifications included herein shall be utilized as design criteria and minimum standards for the corresponding construction work. The successful Offeror shall develop complete construction specifications using the criteria included in these specifications.

The Government will provide Division 1 specifications sections as required, to the successful Offeror; and these sections shall be included in the final construction specifications without change. The Design Build Contractor shall furnish these specifications on electronic media for the production of construction specifications when requested. These specifications shall be submitted together with other required contractor prepared project construction documents during the Second Design Submittal of the Design Phase, Part II.

1.5 ORDER OF PRECEDENCE

In case of conflict, duplication, or overlap of design criteria specified in the documents referenced in this section, the following order of precedence shall be followed:

1. Contract Award Document and referenced publications therein.
2. Written requirements supersede drawings."

1.6 MANDATORY CRITERIA

Portions of the design criteria documents provide mandatory criteria. Mandatory criteria consists of drawings, schematics, specifications, and other requirements which shall not be altered or modified for proposal submittal or subsequent final design except for minor adjustments for coordination or except for cost reduction proposals as specified in Section 00150 - THE DESIGN BUILD PROCESS. Non-mandatory criteria shall be considered minimum requirements and may be enhanced, improved, or substituted to better suit design requirements or to improve evaluation consideration. Mandatory requirements are as listed below. All other design criteria shall be considered non-mandatory.

- Work Plan
- Boundary survey plan
- Topographic survey plan- Not Required
- Any mandatory criteria referenced within Project Program.
- Any other criteria listed herein which is listed, shown or implied as mandatory.

1.7 ADDITIONAL DOCUMENTS/CRITERIA FURNISHED BY THE GOVERNMENT

The following documents will be furnished to the Design/Build Contractor when requested by the Offeror or Contractor:

Design Criteria published by the Government such as Technical Manuals (TM), Engineer Manuals (EM), Engineer Technical Letters (ETL) and other documents related to the design referenced herein which are not available on the Internet, including the CCB website.

Commercial design criteria and specifications will not be furnished by the Government.

Conversion of electronic media to other formats shall be the responsibility of the Design Build Contractor.

PART 2 - PRODUCTS: (NOT APPLICABLE)

PART 3 - EXECUTION: (NOT APPLICABLE)

-- End of Section --

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY REFERENCE

52.203-11	Certification And Disclosure Regarding Payments To Influence Certain Federal Transactions	SEP 2007
52.222-38	Compliance With Veterans' Employment Reporting Requirements	DEC 2001
252.209-7001	Disclosure of Ownership or Control by the Government of a Terrorist Country	OCT 2006
252.225-7031	Secondary Arab Boycott Of Israel	JUN 2005
252.225-7042	Authorization to Perform	APR 2003

CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of clause)

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

Common parent, as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

Taxpayer Identification Number (TIN), as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

___ TIN:-----

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

___ Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

___ Sole proprietorship;

___ Partnership;

- ☐ Corporate entity (not tax-exempt);
- ☐ Corporate entity (tax-exempt);
- ☐ Government entity (Federal, State, or local);
- ☐ Foreign government;
- ☐ International organization per 26 CFR 1.6049-4;
- ☐ Other-----

(f) Common parent.

☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

☐ Name and TIN of common parent:

Name-----

TIN-----

(End of provision)

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2006)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 236220.

(2) The small business size standard is 31.0 Mil.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (c) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (b) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

☐ Paragraph (c) applies.

☐ Paragraph (c) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code

referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change
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Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

(End of Provision)

52.209-5 CERTIFICATION REGARDING RESPONSIBILITY MATTERS (MAY 2008)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that-

(i) The Offeror and/or any of its Principals-

(A) Are () are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have () have not (), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property; and

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.; and

(D) Have [ballot], have not [ballot], within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied.

(1) Federal taxes are considered delinquent if both of the following criteria apply:

(i) The tax liability is finally determined. The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(ii) The taxpayer is delinquent in making payment. A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(2) Examples. (i) The taxpayer has received a statutory notice of deficiency, under I.R.C. Sec. 6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(ii) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. Sec. 6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(iii) The taxpayer has entered into an installment agreement pursuant to I.R.C. Sec. 6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(iv) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. 362 (the Bankruptcy Code).

(ii) The Offeror has () has not (), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) () It has, () has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) () It has, () has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (JUN 2000)

Note: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. DISCLOSURE STATEMENT--COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of \$500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

(1) Certificate of Concurrent Submission of Disclosure Statement.

The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable, and (ii) one copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____ Name and Address of Cognizant ACO or Federal
Official Where Filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

(2) Certificate of Previously Submitted Disclosure Statement.

The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____ Name and Address of Cognizant ACO or Federal
Official Where Filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

(3) Certificate of Monetary Exemption.

The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling more than \$50 million (of which at least one award exceeded \$1 million) in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

(4) Certificate of Interim Exemption.

The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. COST ACCOUNTING STANDARDS--ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

() The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than \$50 million in awards of CAS-covered prime contracts and subcontracts. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$50 million or more or if, during its current cost

accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of \$25 million or more.

III. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

() YES () NO

(End of clause)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

AI 26.6

Section 00600 – Representation & Certifications

AI 26.6 Projected Afghan and Third Country National (TCN) Employment (5 Nov 07)

Projected Afghan Employment

Collecting & Reporting Employment Statistics

The purpose of this clause is to collect data on the projected number of Afghans employed for the term of the contract. Offerors are required to identify in the space provided below the total projected number that will be directly employed in the performance of this contract.

Employment is the total number of Afghan persons expected to be on the payroll (contractors, subcontractors, & sub-subcontractors) employed full or part time who received pay for my part

of the term of the contract. Temporary and intermittent employees are included, as are any workers who are on paid sick leave, on paid holiday, R&R leave or who work during only part of the pay period." Enter into spaces provided in item #1. Next enter in the spaces provided in item #2 what is the average number employed throughout the term of the contract. Item #3 An "Afghan-Based Company" is a company (including a subsidiary company) whose principal place of business is located within Afghanistan.

1. Total Afghan (Afghan Residents) Employed:

Afghan: Men _____

Afghan: Females _____

Total: _____

2. Average Afghans (Afghan Residents) Employed:

Afghan: Men _____

Afghan: Females _____

Total: _____

1. Is your company an "Afghan Based" company? Yes ____ No____. If no, what country is your company registered/incorporated: _____

2. Afghan Company Certification. The offeror ____is or ____is not an Iraqi owned firm. If the firm is Afghan owned, the Ministry of Trade registration/license number is: _____.

(End)

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUL 2004
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	SEP 2006
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	SEP 2007
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	SEP 2006
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-11	Price Reduction for Defective Cost or Pricing Data--Modifications	OCT 1997
52.215-13	Subcontractor Cost or Pricing Data--Modifications	OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	OCT 2004
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions	JUL 2005
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications	OCT 1997
52.216-27	Single or Multiple Awards	OCT 1995
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	MAR 2007
52.222-27	Affirmative Action Compliance Requirements for Construction	FEB 1999
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	SEP 2006
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	SEP 2006
52.222-50	Combating Trafficking in Persons	AUG 2007
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.225-14	Inconsistency Between English Version And Translation Of Contract	FEB 2000
52.227-4	Patent Indemnity-Construction Contracts	DEC 2007
52.228-3	Worker's Compensation Insurance (Defense Base Act)	APR 1984
52.229-6	Taxes--Foreign Fixed-Price Contracts	JUN 2003
52.232-17	Interest	JUN 1996
52.232-18	Availability Of Funds	APR 1984
52.232-27	Prompt Payment for Construction Contracts	SEP 2005
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.232-38	Submission of Electronic Funds Transfer Information with Offer	MAY 1999
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004

52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13 Alt I	Accident Prevention (Nov 1991) - Alternate I	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21 Alt I	Specifications and Drawings for Construction (Feb 1997) - Alternate I	APR 1984
52.236-23	Responsibility of the Architect-Engineer Contractor	APR 1984
52.236-24	Work Oversight in Architect-Engineer Contracts	APR 1984
52.236-25	Requirements for Registration of Designers	JUN 2003
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-4	Changes	JUN 2007
52.243-6	Change Order Accounting	APR 1984
52.244-4	Subcontractors and Outside Associates and Consultants (Architect-Engineer Services)	AUG 1998
52.244-5	Competition In Subcontracting	DEC 1996
52.246-21	Warranty of Construction	MAR 1994
52.247-34	F.O.B. Destination	NOV 1991
52.247-63	Preference For U.S. Flag Air Carriers	JUN 2003
52.248-3	Value Engineering-Construction	SEP 2006
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (May 2004) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2004
252.204-7000	Disclosure Of Information	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.215-7000	Pricing Adjustments	DEC 1991
252.215-7002	Cost Estimating System Requirements	DEC 2006
252.222-7002	Compliance With Local Labor Laws (Overseas)	JUN 1997
252.223-7002	Safety Precautions For Ammunition And Explosives	MAY 1994
252.223-7003	Changes In Place Of Performance--Ammunition And Explosives	DEC 1991
252.223-7004	Drug Free Work Force	SEP 1988
252.225-7005	Identification Of Expenditures In The United States	JUN 2005
252.225-7041	Correspondence in English	JUN 1997
252.227-7013	Rights in Technical Data--Noncommercial Items	NOV 1995
252.227-7022	Government Rights (Unlimited)	MAR 1979
252.227-7023	Drawings and Other Data to become Property of Government	MAR 1979
252.227-7030	Technical Data--Withholding Of Payment	MAR 2000

252.227-7033	Rights in Shop Drawings	APR 1966
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008
252.232-7008	Assignment of Claims (Overseas)	JUN 1997
252.232-7010	Levies on Contract Payments	DEC 2006
252.233-7001	Choice of Law (Overseas)	JUN 1997
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.236-7008	Contract Prices-Bidding Schedules	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall--

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in

the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 120 days. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

52.222-29 NOTIFICATION OF VISA DENIAL (JUN 2003)

It is a violation of Executive Order 11246 for a Contractor to refuse to employ any applicant or not to assign any person hired in the United States, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, or Wake Island, on the basis that the individual's race, color, religion, sex, or national origin is not compatible with the policies of the country where or for whom the work will be performed (41 CFR 60-1.10). The Contractor shall notify the U.S. Department of State, Assistant Secretary, Bureau of Political-Military Affairs (PM), 2201 C Street NW., Room 6212, Washington, DC 20520, and the U.S. Department of Labor, Deputy Assistant Secretary for Federal Contract Compliance, when it has knowledge of any employee or potential employee being denied an entry visa to a country where this contract will be performed, and it believes the denial is attributable to the race, color, religion, sex, or national origin of the employee or potential employee.

(End of clause)

52.232-34 PAYMENT BY ELECTRONIC FUNDS TRANSFER—OTHER THAN CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT) except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend payment due dates until such time as the Government makes payment by EFT (but see paragraph (d) of this clause).

(b) Mandatory submission of Contractor's EFT information. (1) The Contractor is required to provide the Government with the information required to make payment by EFT (see paragraph (j) of this clause). The Contractor shall provide this information directly to the office designated in this contract to receive that information (hereafter: "designated office") no later than 15 days prior to submission of the first request for payment. If not otherwise specified in this contract, the payment office is the designated office for receipt of the Contractor's EFT information. If more than one designated office is named for the contract, the Contractor shall provide a separate notice to each office. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the designated office(s).

(2) If the Contractor provides EFT information applicable to multiple contracts, the Contractor shall specifically state the applicability of this EFT information in terms acceptable to the designated office. However, EFT information supplied to a designated office shall be applicable only to contracts that identify that designated office as the office to receive EFT information for that contract.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. (1) The Government is not required to make any payment under this contract until after receipt, by the designated office, of the correct EFT payment information from the Contractor. Until receipt of the correct EFT information, any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(2) If the EFT information changes after submission of correct EFT information, the Government shall begin using the changed EFT information no later than 30 days after its receipt by the designated office to the extent payment is made by EFT. However, the Contractor may request that no further payments be made until the updated EFT information is implemented by the payment office. If such suspension would result in a late payment under the prompt payment terms of this contract, the Contractor's request for suspension shall extend the due date for payment by the number of days of the suspension.

(e) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment and the provisions of paragraph (d) shall apply.

(f) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall provide the EFT information required by paragraph (j) of this clause to the designated office, and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information provided by the Contractor's financial agent.

(i) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If

the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address in the contract.

(j) EFT information. The Contractor shall provide the following information to the designated office. The Contractor may supply this data for this or multiple contracts (see paragraph (b) of this clause). The Contractor shall designate a single financial agent per contract capable of receiving and processing the EFT information using the EFT methods described in paragraph (c) of this clause.

- (1) The contract number (or other procurement identification number).
- (2) The Contractor's name and remittance address, as stated in the contract(s).
- (3) The signature (manual or electronic, as appropriate), title, and telephone number of the Contractor official authorized to provide this information.
- (4) The name, address, and 9-digit Routing Transit Number of the Contractor's financial agent.
- (5) The Contractor's account number and the type of account (checking, saving, or lockbox).
- (6) If applicable, the Fedwire Transfer System telegraphic abbreviation of the Contractor's financial agent.
- (7) If applicable, the Contractor shall also provide the name, address, telegraphic abbreviation, and 9-digit Routing Transit Number of the correspondent financial institution receiving the wire transfer payment if the Contractor's financial agent is not directly on-line to the Fedwire Transfer System; and, therefore, not the receiver of the wire transfer payment.

(End of clause)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twelve (12%) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under FAR 49.206-2(b). In evaluating a terminations settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

- (1) Actual costs for each piece of equipment, or groups of similar serial or series equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.
- (2) If equipment costs have been allocated to a contract using predetermined rates, those charges will be adjusted to actual costs.
- (3) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.
- (4) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of FAR 31.205-11).
- (5) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(End of Clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://farsite.hitl.af.mil>

(End of clause)

252.204-7004 CENTRAL CONTRACTOR REGISTRATION (52.204-7) ALTERNATE A (SEP 2007)

(a) Definitions. As used in this clause--

“Central Contractor Registration (CCR) database” means the primary Government repository for contractor information required for the conduct of business with the Government.

“Commercial and Government Entity (CAGE) code” means--

(1) A code assigned by the Defense Logistics Information Service (DLIS) to identify a commercial or Government entity; or

(2) A code assigned by a member of the North Atlantic Treaty Organization that DLIS records and maintains in the CAGE master file. This type of code is known as an “NCAGE code.”

“Data Universal Numbering System (DUNS) number” means the 9-digit number assigned by Dun and Bradstreet, Inc. (D&B) to identify unique business entities.

“Data Universal Numbering System +4 (DUNS+4) number” means the DUNS number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11 of the Federal Acquisition Regulation) for the same parent concern.

“Registered in the CCR database” means that--

(1) The Contractor has entered all mandatory information, including the DUNS number or the DUNS+4 number, into the CCR database;

(2) The Contractor's CAGE code is in the CCR database; and

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service, and has marked the records “Active.” The Contractor will be required to provide consent for TIN validation to the Government as part of the CCR registration process.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.

(2) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" or "DUNS +4" followed by the DUNS or DUNS +4 number that identifies the offeror's name and address exactly as stated in the offer. The DUNS number will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number-

(i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at <http://www.dnb.com>; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company Physical Street Address, City, State, and Zip Code.

(iv) Company Mailing Address, City, State and Zip Code (if separate from physical).

(v) Company Telephone Number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(d) If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.

(e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.

(f) The Contractor is responsible for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(g)

(1)

(i) If a Contractor has legally changed its business name, "doing business as" name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in Subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to (A) change the name in the CCR database; (B) comply with the requirements of Subpart 42.12 of the FAR; and (C) agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (g)(1)(i) of this clause, or fails to perform the agreement at paragraph (g)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see FAR Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of payment" paragraph of the EFT clause of this contract.

(h) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the internet at <http://www.ccr.gov> or by calling 1-888-227-2423, or 269-961-5757.

(End of clause)

252.225-7040 CONTRACTOR PERSONNEL AUTHORIZED TO ACCOMPANY U.S. ARMED FORCES DEPLOYED OUTSIDE THE UNITED STATES (MAR 2008)

(a) Definitions. As used in this clause--Combatant Commander means the commander of a unified or specified combatant command established in accordance with 10 U.S.C. 161.

Designated operational area means a geographic area designated by the combatant commander or subordinate joint force commander for the conduct or support of specified military operations.

Subordinate joint force commander means a sub-unified commander or joint task force commander.

(b) General.

(1) This clause applies when Contractor personnel are authorized to accompany U.S. Armed Forces deployed outside the United States in--

(i) Contingency operations;

(ii) Humanitarian or peacekeeping operations; or

(iii) Other military operations or military exercises, when designated by the Combatant Commander.

(2) Contract performance in support of U.S. Armed Forces deployed outside the United States may require work in dangerous or austere conditions. Except as otherwise provided in the contract, the Contractor accepts the risks associated with required contract performance in such operations.

(3) Contractor personnel are civilians accompanying the U.S. Armed Forces.

(i) Except as provided in paragraph (b)(3)(ii) of this clause, Contractor personnel are only authorized to use deadly force in self-defense.

(ii) Contractor personnel performing security functions are also authorized to use deadly force when such force reasonably appears necessary to execute their security mission to protect assets/persons, consistent with the terms and conditions contained in their contract or with their job description and terms of employment.

(iii) Unless immune from host nation jurisdiction by virtue of an international agreement or international law, inappropriate use of force by contractor personnel authorized to accompany the U.S. Armed Forces can subject such personnel to United States or host nation prosecution and civil liability (see paragraphs (d) and (j)(3) of this clause).

(4) Service performed by Contractor personnel subject to this clause is not active duty or service under 38 U.S.C. 106 note.

(c) Support. (1)(i) The Combatant Commander will develop a security plan for protection of Contractor personnel in locations where there is not sufficient or legitimate civil authority, when the Combatant Commander decides it is in the interests of the Government to provide security because--

(A) The Contractor cannot obtain effective security services;

(B) Effective security services are unavailable at a reasonable cost; or

(C) Threat conditions necessitate security through military means.

(ii) The Contracting Officer shall include in the contract the level of protection to be provided to Contractor personnel.

(iii) In appropriate cases, the Combatant Commander may provide security through military means, commensurate with the level of security provided DoD civilians.

(2)(i) Generally, all Contractor personnel authorized to accompany the U.S. Armed Forces in the designated operational area are authorized to receive resuscitative care, stabilization, hospitalization at level III military treatment facilities, and assistance with patient movement in emergencies where loss of life, limb, or eyesight could occur. Hospitalization will be limited to stabilization and short-term medical treatment with an emphasis on return to duty or placement in the patient movement system.

(ii) When the Government provides medical treatment or transportation of Contractor personnel to a selected civilian facility, the Contractor shall ensure that the Government is reimbursed for any costs associated with such treatment or transportation.

(iii) Medical or dental care beyond this standard is not authorized unless specified elsewhere in this contract.

(3) Unless specified elsewhere in this contract, the Contractor is responsible for all other support required for its personnel engaged in the designated operational area under this contract.

(4) Contractor personnel must have a letter of authorization issued by the Contracting Officer in order to process through a deployment center or to travel to, from, or within the designated operational area. The letter of authorization also will identify any additional authorizations, privileges, or Government support that Contractor personnel are entitled to under this contract.

(d) Compliance with laws and regulations. The Contractor shall comply with, and shall ensure that its personnel authorized to accompany U.S. Armed Forces deployed outside the United States as specified in paragraph (b)(1) of this clause are familiar with and comply with, all applicable--

- (1) United States, host country, and third country national laws;
- (2) Treaties and international agreements;
- (3) United States regulations, directives, instructions, policies, and procedures; and
- (4) Orders, directives, and instructions issued by the Combatant Commander, including those relating to force protection, security, health, safety, or relations and interaction with local nationals. However, only the Contracting Officer is authorized to modify the terms and conditions of the contract.

(e) Pre-deployment requirements.

(1) The Contractor shall ensure that the following requirements are met prior to deploying personnel in support of U.S. Armed Forces. Specific requirements for each category may be specified in the statement of work or elsewhere in the contract.

(i) All required security and background checks are complete and acceptable.

(ii) All deploying personnel meet the minimum medical screening requirements and have received all required immunizations as specified in the contract. The Government will provide, at no cost to the Contractor, any theater-specific immunizations and/or medications not available to the general public.

(iii) Deploying personnel have all necessary passports, visas, and other documents required to enter and exit a designated operational area and have a Geneva Conventions identification card, or other appropriate DoD identity credential, from the deployment center. Any Common Access Card issued to deploying personnel shall contain the access permissions allowed by the letter of authorization issued in accordance with paragraph (c)(4) of this clause.

(iv) Special area, country, and theater clearance is obtained for personnel. Clearance requirements are in DoD Directive 4500.54, Official Temporary Duty Abroad, and DoD 4500.54-G, DoD Foreign Clearance Guide. Contractor personnel are considered non-DoD personnel traveling under DoD sponsorship.

(v) All personnel have received personal security training. At a minimum, the training shall--

(A) Cover safety and security issues facing employees overseas;

(B) Identify safety and security contingency planning activities; and

(C) Identify ways to utilize safety and security personnel and other resources appropriately.

(vi) All personnel have received isolated personnel training, if specified in the contract, in accordance with DoD Instruction 1300.23, Isolated Personnel Training for DoD Civilian and Contractors.

(2) The Contractor shall notify all personnel who are not a host country national, or who are not ordinarily resident in the host country, that--

(i) Such employees, and dependents residing with such employees, who engage in conduct outside the United States that would constitute an offense punishable by imprisonment for more than one year if the conduct had been engaged in within the special maritime and territorial jurisdiction of the United States, may potentially be subject to the criminal jurisdiction of the United States in accordance with the Military Extraterritorial Jurisdiction Act of 2000 (18 U.S.C. 3621, et seq.);

(ii) Pursuant to the War Crimes Act (18 U.S.C. 2441), Federal criminal jurisdiction also extends to conduct that is determined to constitute a war crime when committed by a civilian national of the United States;

(iii) Other laws may provide for prosecution of U.S. nationals who commit offenses on the premises of U.S. diplomatic, consular, military or other U.S. Government missions outside the United States (18 U.S.C. 7(9)); and

(iv) In time of declared war or a contingency operation, Contractor personnel authorized to accompany U.S. Armed Forces in the field are subject to the jurisdiction of the Uniform Code of Military Justice under 10 U.S.C. 802(a)(10).

(f) Processing and departure points. Deployed Contractor personnel shall--

(1) Process through the deployment center designated in the contract, or as otherwise directed by the Contracting Officer, prior to deploying. The deployment center will conduct deployment processing to ensure visibility and accountability of Contractor personnel and to ensure that all deployment requirements are met, including the requirements specified in paragraph (e)(1) of this clause;

(2) Use the point of departure and transportation mode directed by the Contracting Officer; and

(3) Process through a Joint Reception Center (JRC) upon arrival at the deployed location. The JRC will validate personnel accountability, ensure that specific designated operational area entrance requirements are met, and brief Contractor personnel on theater-specific policies and procedures.

(g) Personnel data.

(1) The Contractor shall enter before deployment and maintain data for all Contractor personnel that are authorized to accompany U.S. Armed Forces deployed outside the United States as specified in paragraph (b)(1) of this clause. The Contractor shall use the Synchronized Predeployment and Operational Tracker (SPOT) web-based system, at <http://www.dod.mil/bta/products/spot.html>, to enter and maintain the data.

(2) The Contractor shall ensure that all employees in the database have a current DD Form 93, Record of Emergency Data Card, on file with both the Contractor and the designated Government official. The Contracting Officer will inform the Contractor of the Government official designated to receive this data card.

(h) Contractor personnel.

(1) The Contracting Officer may direct the Contractor, at its own expense, to remove and replace any Contractor personnel who jeopardize or interfere with mission accomplishment or who fail to comply with or violate applicable requirements of this contract. Such action may be taken at the Government's discretion without prejudice to its rights under any other provision of this contract, including the Termination for Default clause.

(2) The Contractor shall have a plan on file showing how the Contractor would replace employees who are unavailable for deployment or who need to be replaced during deployment. The Contractor shall keep this plan current and shall provide a copy to the Contracting Officer upon request. The plan shall--

(i) Identify all personnel who are subject to military mobilization;

(ii) Detail how the position would be filled if the individual were mobilized; and

(iii) Identify all personnel who occupy a position that the Contracting Officer has designated as mission essential.

(i) Military clothing and protective equipment.

(1) Contractor personnel are prohibited from wearing military clothing unless specifically authorized in writing by the Combatant Commander. If authorized to wear military clothing, Contractor personnel must--

(i) Wear distinctive patches, arm bands, nametags, or headgear, in order to be distinguishable from military personnel, consistent with force protection measures; and

(ii) Carry the written authorization with them at all times.

(2) Contractor personnel may wear military-unique organizational clothing and individual equipment (OCIE) required for safety and security, such as ballistic, nuclear, biological, or chemical protective equipment.

(3) The deployment center, or the Combatant Commander, shall issue OCIE and shall provide training, if necessary, to ensure the safety and security of Contractor personnel.

(4) The Contractor shall ensure that all issued OCIE is returned to the point of issue, unless otherwise directed by the Contracting Officer.

(j) Weapons.

(1) If the Contractor requests that its personnel performing in the designated operational area be authorized to carry weapons, the request shall be made through the Contracting Officer to the Combatant Commander, in accordance with DoD Instruction 3020.41, paragraph 6.3.4.1 or, if the contract is for security services, paragraph 6.3.5.3. The Combatant Commander will determine whether to authorize in-theater Contractor personnel to carry weapons and what weapons and ammunition will be allowed.

(2) If the Contracting Officer, subject to the approval of the Combatant Commander, authorizes the carrying of weapons--

(i) The Contracting Officer may authorize the Contractor to issue Contractor-owned weapons and ammunition to specified employees; or

(ii) The (Contracting Officer to specify the appropriate individual, e.g., Contracting Officer's Representative, Regional Security Officer) may issue Government-furnished weapons and ammunition to the Contractor for issuance to specified Contractor employees.

(3) The Contractor shall ensure that its personnel who are authorized to carry weapons--

(i) Are adequately trained to carry and use them--

(A) Safely;

(B) With full understanding of, and adherence to, the rules of the use of force issued by the Combatant Commander; and

(C) In compliance with applicable agency policies, agreements, rules, regulations, and other applicable law;

(ii) Are not barred from possession of a firearm by 18 U.S.C. 922; and

(iii) Adhere to all guidance and orders issued by the Combatant Commander regarding possession, use, safety, and accountability of weapons and ammunition.

(4) Whether or not weapons are Government-furnished, all liability for the use of any weapon by Contractor personnel rests solely with the Contractor and the Contractor employee using such weapon.

(5) Upon redeployment or revocation by the Combatant Commander of the Contractor's authorization to issue firearms, the Contractor shall ensure that all Government-issued weapons and unexpended ammunition are returned as directed by the Contracting Officer.

(k) Vehicle or equipment licenses. Contractor personnel shall possess the required licenses to operate all vehicles or equipment necessary to perform the contract in the designated operational area.

(l) Purchase of scarce goods and services. If the Combatant Commander has established an organization for the designated operational area whose function is to determine that certain items are scarce goods or services, the Contractor shall coordinate with that organization local purchases of goods and services designated as scarce, in accordance with instructions provided by the Contracting Officer.

(m) Evacuation.

(1) If the Combatant Commander orders a mandatory evacuation of some or all personnel, the Government will provide assistance, to the extent available, to United States and third country national Contractor personnel.

(2) In the event of a non-mandatory evacuation order, unless authorized in writing by the Contracting Officer, the Contractor shall maintain personnel on location sufficient to meet obligations under this contract.

(n) Next of kin notification and personnel recovery.

(1) The Contractor shall be responsible for notification of the employee-designated next of kin in the event an employee dies, requires evacuation due to an injury, or is isolated, missing, detained, captured, or abducted.

(2) In the case of isolated, missing, detained, captured, or abducted Contractor personnel, the Government will assist in personnel recovery actions in accordance with DoD Directive 2310.2, Personnel Recovery.

(o) Mortuary affairs. Mortuary affairs for Contractor personnel who die while accompanying the U.S. Armed Forces will be handled in accordance with DoD Directive 1300.22, Mortuary Affairs Policy.

(p) Changes. In addition to the changes otherwise authorized by the Changes clause of this contract, the Contracting Officer may, at any time, by written order identified as a change order, make changes in the place of performance or Government-furnished facilities, equipment, material, services, or site. Any change order issued in accordance with this paragraph (p) shall be subject to the provisions of the Changes clause of this contract.

(q) Subcontracts. The Contractor shall incorporate the substance of this clause, including this paragraph (q), in all subcontracts when subcontractor personnel are authorized to accompany U.S. Armed Forces deployed outside the United States in--

(1) Contingency operations;

(2) Humanitarian or peacekeeping operations; or

(3) Other military operations or military exercises, when designated by the Combatant Commander.

(End of clause)

252.225-7043 ANTITERRORISM/FORCE PROTECTION POLICY FOR DEFENSE CONTRACTORS
OUTSIDE THE UNITED STATES (MAR 2006)

(a) Definition. United States, as used in this clause, means, the 50 States, the District of Columbia, and outlying areas.

(b) Except as provided in paragraph (c) of this clause, the Contractor and its subcontractors, if performing or traveling outside the United States under this contract, shall--

- (1) Affiliate with the Overseas Security Advisory Council, if the Contractor or subcontractor is a U.S. entity;
 - (2) Ensure that Contractor and subcontractor personnel who are U.S. nationals and are in-country on a non-transitory basis, register with the U.S. Embassy, and that Contractor and subcontractor personnel who are third country nationals comply with any security related requirements of the Embassy of their nationality;
 - (3) Provide, to Contractor and subcontractor personnel, antiterrorism/force protection awareness information commensurate with that which the Department of Defense (DoD) provides to its military and civilian personnel and their families, to the extent such information can be made available prior to travel outside the United States; and
 - (4) Obtain and comply with the most current antiterrorism/force protection guidance for Contractor and subcontractor personnel.
- (c) The requirements of this clause do not apply to any subcontractor that is--
- (1) A foreign government;
 - (2) A representative of a foreign government; or
 - (3) A foreign corporation wholly owned by a foreign government.
- (d) Information and guidance pertaining to DoD antiterrorism/force protection can be obtained from **Combined Security Transition Command, Afghanistan (CSTC-A) Camp Eggers, Kabul, Afghanistan**

(End of clause)

252.229-7000 INVOICES EXCLUSIVE OF TAXES OR DUTIES (JUNE 1997)

Invoices submitted in accordance with the terms and conditions of this contract shall be exclusive of all taxes or duties for which relief is available.

(End of clause)

252.229-7001 TAX RELIEF (JUN 1997)

(a) Prices set forth in this contract are exclusive of all taxes and duties from which the United States Government is exempt by virtue of tax agreements between the United States Government and the Contractor's government. The following taxes or duties have been excluded from the contract price:

“Reference the exchange of diplomatic notes between the USA and Afghanistan dated September 26, 2002, December 12, 2002, and May 28, 2003; and/or successor notes or agreements as applicable.”

(b) The Contractor's invoice shall list separately the gross price, amount of tax deducted, and net price charged.

(c) When items manufactured to United States Government specifications are being acquired, the Contractor shall identify the materials or components intended to be imported in order to ensure that relief from import duties is

obtained. If the Contractor intends to use imported products from inventories on hand, the price of which includes a factor for import duties, the Contractor shall ensure the United States Government's exemption from these taxes. The Contractor may obtain a refund of the import duties from its government or request the duty-free import of an amount of supplies or components corresponding to that used from inventory for this contract.

(End of clause)

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies;
- (4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
- (5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

- (1) Large-scale drawings shall govern small-scale drawings; and
- (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Title	File	Drawing No.
See Appendix A		

(End of clause)

CLASS DEVIATION 2007-0-00010

CLASS DEVIATION 2007-00010, IMPLEMENTATION OF THE SYNCHRONIZED
PREDEPLOYMENT AND OPERATIONAL TRACKER (SPOT) TO ACCOUNT FOR

CONTRACTOR PERSONNEL PERFORMING IN THE UNITED STATES CENTRAL
COMMAND AREA OF RESPONSIBILITY.

(i) “Performance in the United States Central Command Area of Responsibility (USCENTCOM AOR)” means performance of a service or construction, as required by the contract. For supply contracts, production of the supplies or associated overhead functions are not covered, but services associated with the acquisition of the supplies are covered (e.g., installation or maintenance).

(ii) If a contract requires performance in the USCENTCOM AOR, but some personnel performing the contract are authorized to accompany the U.S. Armed Forces, and other personnel performing the contract are not authorized to accompany the U.S. Armed Forces, include in the solicitation and contract both the clause at DFARS 252.225-7040 and the clause provided by Class Deviation 2007-O0010. Paragraph (b)(1) of each clause limits the applicability of the clause to the appropriate personnel. There are differences between the two clauses, primarily in Government support to contractor personnel (e.g., security protection and limited medical treatment) and potential applicability of the Uniform Code of Military Justice to contractor employees that are authorized to accompany the U.S. Armed Forces.

(iii) The requirements of paragraph (g) of the clause in Class Deviation 2007-O0010 are not applicable to subcontracts for which the period of performance of the subcontract is less than 30 days.

(iv) In exceptional circumstances, the head of the agency may authorize deviations from the requirements of Class Deviation 2007-O0010, in accordance with FAR Subpart 1.4 and DFARS Subpart 201.4.

(end clause)

Section 00800 - Special Contract Requirements

52.000-4106

DEFENSE BASE ACT INSURANCE RATES – LIMITATION – FIXED-PRICE (APR 2008)

(a) The U. S. Army Corps of Engineers (USACE) has entered into a contract with **CNA/Continental Insurance Company** to provide all Defense Base Act (DBA) insurance to USACE contractors at a contracted rate. The rates for this insurance are as follows:

Services @ \$3.50 per \$100 of compensation;

Construction @ \$7.25 per \$100 of compensation;

Security @ \$10.30 per \$100 of compensation;

Aviation @ \$17.50 per \$100 of compensation.

(b) Bidders/Offerors should compute the total compensation (direct salary plus differential, but excluding per diem, housing allowance and other miscellaneous post allowances) to be paid to employees who will be covered by DBA insurance and the cost of DBA totals in the spaces provided for the base period and whatever extension there may be thereafter, if applicable.

(1) Compensation of Covered Employees: _____

(2) Defense Base Act Insurance Costs: _____

(3) Total Cost: _____

(c) Bidders/Offerors shall include a statement as to whether or not local nationals or third country nationals will be employed on the resultant contract.

(d) CNA Insurance is utilizing Rutherford International as their managing Broker. The primary POC is the USACE DBA Program Administrator is Ramoan Jones, (703) 813-6571 ramoan.jones@rutherford.com. The alternate POC is Sara Payne, Senior Vice President, (703) 813-6503 sara.payne@rutherford.com.

52.000-4105

WORKERS COMPENSATION INSURANCE (DEFENSE BASE ACT) – CONSTRUCTION (APR 2008)

- (a) This clause supplements FAR Clause 52.228-3.
- (b) The contractor agrees to procure Defense Base Act (DBA) insurance pursuant to the terms of the contract between the U.S. Army Corps of Engineers (USACE) and **CNA/Continental Insurance Company** unless the contractor has a DBA self-insurance program approved by the Department of Labor. The contractor shall submit a copy of the Department of Labor's approval to the contracting officer upon contract award. The current rate under the USACE contract is **\$7.25 per \$100 of compensation for construction.**
- (c) The contractor agrees to insert a clause substantially the same as this one in all subcontracts to which DBA is applicable. Subcontractors shall be required to insert a similar clause in any of their subcontracts subject to the DBA.
- (d) Should the rates for DBA insurance coverage increase or decrease during the performance of this contract, USACE shall modify the contract accordingly. However, the revised rates will not be applicable until the Contractor's or Subcontractor's DBA Insurance policy is due to be renewed.
- (e) Premiums will be reimbursed only if coverage is purchased through the USACE DBA Pilot Program administered by CNA Insurance and their Managing Broker, Rutherford International.

ECONOMIC SURVEILLANCE

Economic Surveillance Contract Language

Contractor shall report average pay rates and employment levels, for both domestic and international employees monthly. The information will be reported by labor category (as specified by USACE) and be specific to each work active work site. In addition the contractor shall report monthly non-labor contract spending for domestic and international contract expenses. This information will be reported by category (as specified by USACE) and will be specific to each active work site.

CLAUSES INCORPORATED BY REFERENCE

52.211-13	Time Extensions	SEP 2000
52.246-12	Inspection of Construction	AUG 1996
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

PART 1 - The Contractor shall be required to (a) commence work under this contract within Seven (7) calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 235 calendar days from Notice to Proceed, or 355 calendar days from the Notice to Proceed if all the options are exercised.

* The time stated for completion shall include final cleanup of the premises.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$1450.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.232-5000 PAYMENT FOR MATERIALS DELIVERED OFF-SITE (MAR 1995) -
-EFARS

(a) Pursuant to FAR clause 52.232-5, Payments Under Fixed Priced Construction Contracts, materials delivered to the contractor at locations other than the site of the work may be taken into consideration in making payments if included in payment estimates and if all the conditions of the General Provisions are fulfilled. Payment for items delivered to locations other than the work site will be limited to: (1) materials required by the technical provisions; or (3) materials that have been fabricated

to the point where they are identifiable to an item of work required under this contract.

(b) Such payment will be made only after receipt of paid or receipted invoices or invoices with canceled check showing title to the items in the prime contractor and including the value of material and labor incorporated into the item. In addition to petroleum products, payment for materials delivered off-site is limited to the following items: _____
(End of clause)

52.236-4 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by either surveys, core borings, and/or reconnaissance.

(b) Weather conditions. Information regarding weather conditions is available in Technical Specifications Section 01060 for examination by bidders. If additional information concerning weather is required prospective bidders should contact the U.S. Army corps of Engineers, Afghanistan Engineer District, House #1, Street #1, West Wazir Akbar Khan, (behind Amani High School); Kabul, Afghanistan.

(c) Transportation facilities. It shall be the responsibility of the Contractor to make his own investigation of available roads for transportation, of load limits of bridges on the roads, and of other road conditions, which may effect transportation of materials, equipment, and personnel to the site of the work.

(End of clause)

SECTION 01010**SECTION 01010
SCOPE OF WORK****PART 1 GENERAL:**

The base bid for this project includes the survey, design and construction of an approximately 6 km two lane un-surfaced roadway from Titan Dara (34.989655 N Latitude, 70.401865 E Longitude) to a point identified by coordinates 35.000359 N Latitude, 70.452778 E Longitude in the Nuristan and Kunar Provinces of Afghanistan. See Attachment A.

Optional bid items include

- (1) Design and construction of an additional 6 km of roadway;
- (2) Aggregate base course;

See bid schedule (00010) for a full list of optional bid items.

The proposed roadway shall consist of a 6 meter wide carriageway with 1.5 meter wide shoulders (see Attachment B). The contract shall require replacement of all existing bridges, culverts, erosion control structures, retaining walls, and causeways and design and construction of any additional necessary drainage/retainage structures. All structures shall be designed and constructed as required in accordance with the referenced design guides. All design parameters shall be in accordance with Section 01015.

The contractor shall develop the proposed roadway alignment and survey generally based upon existing roadway alignment, adjusting the alignment and profile to meet applicable design standards. No construction activity shall be allowed until the proposed roadway alignment and profile have been approved by the COR. The roadway shall end at a logical ending point approved by the COR in coordination with local government officials (as applicable) and shall be terminated with a cul-du-sac sized to allow for a 180 degree turn by a WB50 or equivalent vehicle.

The work within this contract shall also meet and be constructed in accordance with the Ministry of Rural Rehabilitation and Development (MRRD) "Standard Drawings" Ministry of Public Works (MPW), and "Islam Republic of Afghanistan Ministry of Public Works Interim Road and Highway Standards" dated 21 March 2005 or latest edition, and safety and security standards and other references as stated in Section 01015 "Technical Requirement". In the event of discrepancies between the contract documents and the MRRD / MPW Standards, the requirements of this contract take precedence.

1.1. ENGLISH LANGUAGE REQUIREMENT: All Information shall be presented in English. The Contractor shall have a minimum of one English-speaking representative to communicate with the Contracting Officer Representative (COR) at all times.

1.2. COMMUNITY RELATIONS PLAN: Contractor is required to submit and implement a Community Relations Plan which includes the following:

1.2.A. Identify all communities along the route within 5 kilometers of the new road alignment.

1.2.B. Hold initial meetings with local and provincial officials and the local PRT Commander to discuss the project and the Community Relations Plan.

2.B.1. Hold an initial organizational kick-off meeting with each village.

2.B.2. Hold regularly scheduled monthly meetings with the communities. Ensure that there is representation from all major tribal elements.

- 2.B.3.** Determine the number of available skilled and unskilled workers in the region.
- 2.B.4.** Solicit comments and concerns about the project.
- 2.B.5.** Provide meeting minutes to the Contracting Officer's Representative:
 - 2.B.5.a.** Include names and phone numbers of community leaders in attendance.
 - 2.B.5.b.** Issues that were discussed, proposed solutions to issues, and an assessment and commentary of the community's support of the project.
 - 2.B.5.c.** Meeting minutes shall be provided to the Contracting Officer Representative within seven (7) days after the meeting is held.

1.2.C. Contractor's plan to actively and continuously solicit community support for the project.

1.3. CQM TRAINING REQUIREMENT: Before project design and construction begin, the Contractor's Quality Control Manager is required to have completed the U.S. Army Corps of Engineers CQM course, or approved equivalent. The Construction Trades Training Center (CTTC) in Jalalabad, Afghanistan provides a course that satisfies the requirement. Courses are offered at regular intervals. For enrollment and course information contact CTTC at the following:

1.3.A. Mhd. Haris

e-mail: mharis@afghanreconstruction.org

Telephone: 0700 08 0602

1.3.B. Pervaiz

e-mail: adpzmuj@yahoo.com

Telephone: 0700 61 3133

1.3.C. USACE Guide Specification 01451, entitled "Contractor Quality Control", 3.5.D. requires approval of the Contractor's CQC Plan. That approval is contingent upon the successful completion of this course by the Contractor's Quality Control Manager.

PART 2 - UNEXPLODED ORDNANCE (UXO)

2.1. UXO REMOVAL AND CLEARANCE: The contractor is not responsible for the clearance or removal of mines and unexploded ordnance (UXO) from the site prior to the commencement of construction.

2.1.A. It is the responsibility of the Contractor to be aware of the risk of encountering UXO/mines and to take all actions necessary to assure a safe work area to perform the requirements of this contract. The Contractor assumes the risk of any and all personal injury, property damage or other liability arising out of or resulting from any Contractor action taken hereunder. The Contractor and its subcontractors may not handle, work with, move, transport, render safe, or disarm any UXO/mine, unless they have appropriate accreditations from the MAC.

2.1.B. If a UXO/mine is encountered during project construction, UXO/mine disposal shall be handled in accordance with Section 01015, Technical Requirements.

PART 3 - SUMMARY OF WORK: The contractor shall design and construct roads and structures in accordance to the Afghanistan "Standard Drawings Revision -1" by the Ministry of Rural Rehabilitation and Development (MRRD) and the Ministry of Public Works (MPW). The design phase of the project shall consist of 5 design submittal stages:

- Phase 1: The 15% submittal shall include a full topographical survey of the roadway alignment, with accurate existing horizontal and vertical layout, profiles, and existing drainage structures. The contractor shall survey cross section of all rivers, streams and wadis a distance of 50 m from the centerline of the road (upstream and downstream). The Contractor shall, as part of their survey, conduct inspections and evaluations of all existing drainage structures and provide their findings and recommendations in a report as part of this submission. The report shall describe the structure i.e., length, width, height, materials, etc. and contain a photo. The contract requires replacement of all existing structures, however existing structures may remain in place if the

Contractor can demonstrate that the structure is structurally and functionally adequate and will provide a design life of 25 years.

For stream crossings which do not have existing structures, the submittal shall provide the type and size of proposed structure(s). Structure sizing shall be based upon topographic and hydraulic/hydrologic conditions at the site.

- Phase 2: The 50% design submittal where the designs shall include the plan and profile (P&P) views and cross-sections at every 50m, proposed retaining walls and preliminary drainage structure designs. All design submittals shall comply with section 1335.
- Phase 3: The 90% plans shall have all plan requirements; Technical, Plan and Profile, cross-sections and detailed drawings of all structures.
- Phase 4: The 100% design phase in which all comments and changes shall be incorporated in the final design package.

3.1. CONTRACTOR REQUIREMENTS: The Contractor shall accomplish required work at the aforementioned site within the contract and shall be in accordance with the requirements stated in Section 01015: TECHNICAL REQUIREMENTS and others sections herein. Refer to Section 01015 for further direction. Contractor shall report to the Contracting Office Representative (COR) progress of the project in weekly progress reports that include, but are not limited to, required submittals, work being performed, quantity of blasting and excavation, current location of ongoing construction, photographs, climate data, equipment on site, safety issues, security issues, number of workers and type of work being performed.

3.1.A. Roads: Road design and construction shall be in accordance with the MRRD and MPW Standards, latest edition, and based upon criteria included in Section 01015. In the event of discrepancies between the contract documents and the MRRD / MPW Standards, the requirements of this contract take precedence. Contractor is responsible for all required soil testing and surveying for pavement, structures, surface road design. The design requires a comprehensive topographic survey.

3.1.B. Construction: Construction specifications shall be submitted to the USACE for approval and shall be in accordance with technical references in this contract. The Contractor shall submit, prior to the commencement of construction, a plan for maintaining traffic flow during road construction.

3.1.C. SECURITY: Contractor is responsible to provide security protection during construction to safeguard his employees and equipment. The Contractor shall submit, prior to the commencement of construction, a plan for security protection, with a list of the chain of command. The contractor shall provide coordinates of construction base camps, quarries, and current worksites to AED. The contractor shall provide the names, photos, and tazkira number for all security personnel and those with access to weapons, ammunition, and/or explosives to AED.

3.1.D. PRE-DESIGN MEETING: Within fourteen (14) calendar days from NTP, the Contractor shall schedule and participate in a Pre-Design Meeting at AED, Kabul. At said meeting, the contractor will demonstrate knowledge of the Preliminary Plans by leading a discussion on the intent of the design and potential changes to the vertical or horizontal alignments. A tentative Project Schedule will also be presented by the contractor, to demonstrate their understanding of the project timeline.

3.1.E. DESIGN CHARRETTE: The Contractor shall schedule and participate in design charrettes, at approximately 5% and 15% design submittals, with the USACE and other stakeholders identified by the Contracting Officer. The Contractor shall present the fine points of the road alignment and profile, road structure, and drainage designs. The meeting shall develop and approve a finalized and agreed upon roadway alignment. The approved alignment is required prior to continuing to 50% design and construction documents. The design team shall consider local and innovative methods of design, planning and construction to ensure best value and best application for the reconstructed roads.

PART 4 - COMPLETION OF WORK: All work required under this contract shall be completed within 235 calendar days from Notice to Proceed, or 355 calendar days from the Notice to Proceed if all the options are exercised.

PART 5 - PERFORMANCE PERIOD: Liquidated damages in the amount of \$1,450.00 for every calendar day of delay shall be assessed and charged to the Contractor.

PART 6 - WARRANTY: Contractor shall warranty all asphalt pavement, culverts, bridges and other drainage structures for a period of one year after final acceptance of the project. The contractor shall warranty all other work for a period of one year after the final acceptance of the project. Warranty work shall include grading, repairing and upgrading eroded areas, structures and drainages as necessary to bring the road back to 100% serviceability.

PART 7 - REFERENCES: Refer to Section 01015 for required references.

-- End of Section --

SECTION 01015**SECTION 01015****TECHNICAL REQUIREMENTS****PART 1 - GENERAL:**

1.1. CONTRACTOR DESIGN OBLIGATION: The Contractor's design and construction must comply with technical requirements contained herein. The Contractor shall provide design and construction using the best blend of cost, construction efficiency, system durability, ease of maintenance and environmental compatibility.

1.2. CONTRACTOR OBLIGATION: These design and product requirements are minimum requirements. The Contractor is encouraged to propose alternate design or products (equipment and material) that are more commonly used in the region, will be equally or more cost effective or allow for more timely completion, but furnish the same system durability, ease of maintenance and environmental compatibility. The Contractor will be required to submit information as requested by the Contracting Officer to make a comparison of the proposed alternate. All variations must be approved by the Contracting Officer.

1.3. SAFETY:**1.3.A. Unexploded Ordnance (UXO):**

3.A.1. UXO/Mine Discovery During Project Construction: It is the responsibility of the Contractor to be aware of the risk of encountering UXO and to take all actions necessary to assure a safe work area to perform the requirements of this contract. If during construction, the contractor becomes aware of or encounters UXO or potential UXO, the contractor shall immediately stop work at the site of encounter, move to a safe location, notify the COR, and mitigate any delays to scheduled or unscheduled contract work. Once the contractor has informed the COR, the contractor will await further direction. The Contractor assumes the risk of any and all personal injury, property damage or other liability arising out of or resulting from any Contractor action taken hereunder. Scrap metal shall be the property of the Host Government. The scrap metal on site shall be moved to an area away from the site perimeter as directed by the Contracting Officer's Representative and left for the Host Government to remove and/or salvage. NOTE: For previous UXO/mine information, the following points of contact from the UN Mine Action Center of Afghanistan are provided:

Mohammad Sediq, Chief of Operations
UN Mine Action Centre for Afghanistan (UNMACA)
Email: sediq@unmaca.org
Cell: +93 070 295207
0093 (0) 799 248 934

Hansie Heymans, Chief Information Officer
UN Mine Action Centre for Afghanistan (UNMACA)
Email: hansie@unmaca.org
hansie@unops.org
Cell: +93 070 294286

1.3.B. EXPLOSIVES SAFETY:

3.B.1. General Safety Considerations: General safety considerations applicable to personnel, both essential and non-essential, at project sites where UXO may be encountered include:

3.B.1.a. Do not carry fire or spark-producing devices.

3.B.1.b. Do not conduct explosive or explosive-related operations without approved

procedures and proper supervision and UXO safety support.

3.B.1.c. Do not become careless by reason of familiarity with UXO or the reported probability level of UXO contamination.

3.B.1.d. Do not conduct explosive or potentially explosive operations during inclement weather.

3.B.1.e. Avoid contact with UXOs.

3.B.1.f. Employ the "buddy system" at all times.

3.B.2. Activity Hazard Analysis (AHA) Briefings:

3.B.2.a. Activity Hazard Analysis's shall be prepared in accordance with the United States Corps of Engineers Safety (USACE) and Health Requirements Manual, EM 385-1-1.

3.B.2.b. Hazard analyses will be prepared and briefed by personnel that are knowledgeable in UXO and explosives safety standards and requirements.

3.B.2.b.i. These personnel should understand the specific operational requirement and hazard analysis methodologies. A hazard analysis will be performed for each activity to determine the significance of any potential explosive-related hazards.

3.B.2.b.ii. Explosive residues may be discovered or exposed during UXO operations in the form of powder or various granular and powder based pellets.

3.B.2.b.iii. The contaminants can enter the body through the skin or by ingestion if proper personal hygiene practices are not followed.

3.B.2.b.iv. Explosive fillers, such as white phosphorus, are dangerously reactive in air and a fire hazard.

3.B.2.b.v. Acute exposure can result in serious injury to the skin, eyes, and mucous membranes.

3.B.3. Safety requirements (or alternatives) that will either eliminate the identified hazards, mitigate or control them to reduce the associated risks to an acceptable level will be developed. The adequacy of the operational and support procedures that will be implemented to eliminate, control, or abate identified hazards or risks will then be evaluated and a second risk assessment completed to verify that a satisfactory safety level has been achieved.

1.3.C. NOTIFICATION OF NONCOMPLIANCE: The COR will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the COR may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall make no part of the time lost due to such stop orders the subject of claim for extension of time or for excess costs or damages.

1.4. LIMITATION OF WORKING SPACE: The Contractor shall confine his operations strictly within the boundaries of the work site. Workmen will not be permitted to trespass on adjoining property. Any operations or use of space outside the boundaries of the site shall be by arrangement with all interested parties. It must be emphasized the Contractor must take all practical steps to prevent his workmen from entering adjoining property and in the event of trespass occurring the Contractor will be held responsible.

1.5. TEMPORARY STRUCTURES: The Contractor shall erect suitable temporary fencing, lighting, and necessary structures to safeguard his equipment, materials and plant against damage, theft, for the protection of the general public and from insurgency attacks. The Contractor shall adequately maintain the same throughout the course of the contract.

1.6. SUBCONTRACTORS: Compliance with the provisions of this project by subcontractors will be

the responsibility of the contractor.

1.7. LIST OF CODES AND TECHNICAL CRITERIA: The following codes and technical criteria and those referenced therein shall be required for this project. ***References within each reference below shall be required and adhered to.*** This list is not exhaustive and is not necessarily complete.

- **Ministry of Rural Rehabilitation and Development (MRRD) and Ministry of Public Works (MPW) Standards, latest edition**
- AASHTO – American Association of State Highway and Transportation Officials
- AASHTO – A Policy on Geometric Design of Highways and Streets, latest edition.
- AASHTO – Manual on Uniform Traffic Control Devices, latest edition.
- AASHTO – Model Drainage Manual
- ASTM - American Society for Testing and Materials
- International Mine Action Standards, latest edition; see <http://www.mineactionstandards.org> for copy of standards.
- UFC 3-230-17FA Design: Drainage for Areas Other than Airfields
- UFC 3-230-18FA Design: General Provisions and Geometric Design for Roads, Streets, Walks, and Open Storage Areas
- UFC 3-250-01FA Design: Pavement Design for Roads, Streets, Walks and Open Storage Areas
- UFC 3-250-09FA Design: Aggregate Surfaced Roads and Airfields Areas
- UFC 3-320-05FA Design: Structural Design Criteria for Structures Other than Buildings
- [EM 1110-3-136](#) Drainage and Erosion Control - Mobilization Construction

The publications to be taken into consideration shall be those of the most recent editions. Standards, other than those mentioned above, may be accepted if the standards chosen are internationally recognized and meet the minimum requirements of the specified standards. The Contractor shall be prepared to submit proof of this if requested by the COR.

PART 2 - ENVIRONMENTAL PROTECTION:

2.1. APPLICABLE REGULATIONS: The Contractor shall comply with all Host Nation laws, rules, regulations or standards concerning environmental pollution control and abatement with regard to discharge of liquid waste into natural streams or manmade channels. The contractor shall review host nation and U.S. Government environmental regulations with the COR prior to design and discharge of any liquid wastes into natural streams or manmade channels.

2.2. NOTIFICATION: The COR will notify the Contractor, in writing, of any observed non-compliance with the foregoing provisions. The Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the COR may issue an order stopping part or all of the work until satisfactory corrective action has been taken. No extension of time or damages will be awarded to the Contractor unless it was later determined that the Contractor was in compliance.

2.3. SPILLAGES: Measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides and insecticides and construction materials from polluting the construction site and surrounding area.

2.4. DISPOSAL: Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall be taken to a dumpsite off site and subject to the approval of the Contracting Officer.

PART 3 - ROAD DESIGN DEVELOPMENT:

3.1. GENERAL: Contractor is responsible for verifying information and quantities before bidding this project and shall design and construct the new road as specified in this RFP. The attachments indicate the location of the beginning and ending point for the roadway. Information provided in the attachments is for informational purposes only. The roadway alignment shown is for illustrative

purposes only, the Contractor is responsible for locating the proposed roadway alignment between the beginning and ending point. Contractor is responsible for verifying information and quantities before bidding this project and shall design and construct the new road as specified in this RFP. The project includes but is not limited to furnishing all materials, equipment and labor for constructing roads, temporary detours, storm water drainage ditches, bridges, culverts, erosion control structures, and retaining structures, as applicable, and connecting to the existing road networks. Traffic control is required to safely navigate traffic around the construction areas shall be the responsibility of the Contractor.

3.2. ROADS: The work within this contract shall also meet and be constructed in accordance with the Ministry of Rural Rehabilitation and Development (MRRD) and Ministry of Public Works (MPW) "Road and Highway Standards," safety and security standards and other references as stated in Section 01015 "Technical Requirement". In the event of discrepancies between the contract documents and the MRRD / MPW Standards, the requirements of this contract take precedence.

3.3. CURRENT CONDITIONS: Portions of the subject roadway have been reconstructed from an unimproved dirt trail which ranges from 2m to 3m in width. Sections of the existing roadway may meet proposed design requirements for profile and alignment. A significant number of dry stacked structures will require reconstruction to meet the requirements of this contract. There are no paved sections of roadway.

3.4. END STATE: The base contract final improved state for the road shall consist of a 6 meter wide carriageway with 1.5 meter wide shoulders. A 150 mm thick gravel surface for the carriageway and shoulders will be provided as an optional item (see bid tab). The road shall be designed and constructed to support a minimum 12,000 kg load per single axle. The road shall be realigned as needed to provide minimum curve radii and to limit grades to the maximum allowed by the design guidance. The roadway shall be constructed with good drainage and erosion protection. High erosion areas, such as shallow drainage crossings and wadi crossings, shall be armored with a hard surfaced crossing such as an at-grade concrete crossing structure. Erosion structures shall be constructed in slide and flood areas to prevent road blockage and wash-out; this includes the construction of check dams and groynes upstream and downstream of low water crossings (aka fords, aka causeways). Dry stacking for retaining walls, bridges and associated structures will not be allowed.

<u>Percentage by Weight Passing Square Mesh Laboratory Sieves</u>			
	<u>Size Numbers</u>		
<u>Sieves</u>	<u>1</u>	<u>2</u>	<u>3</u>
50.0 mm	100	-	-
37.5 mm	70-100	100	-
25.0 mm	45-80	60-100	100
12.5 mm	30-60	30-65	40-70
4.75 mm	20-50	20-50	20-50
2.0 mm	15-40	15-40	15-40
425 micrometers	5-25	5-25	5-25
75 micrometers	0-10	0-10	0-10

Roadway base course shall be the requirements of gradation No. 2 for all proposed gravel surfaced roadways.

3.5. GENERAL DESIGN REQUIREMENTS:

3.5.A. Road alignment and profile shall be determined by Contractor. The Contractor shall design the roadway with good drainage and erosion protection. Contractor shall straighten road alignment

as much as possible. Drainage ditching is required on both sides of the road and ditches shall terminate in areas where water can drain away from road structure. Hydrology of the region shall be used to determine drainage ditch and structure sizes. All intersecting roads, paths, driveways and culvert crossing are required to have a smooth transition to the new road alignment.

3.5.B. In mountainous areas: 1) The road width may be reduced to 5m with 0.5m shoulders (6M wide total) upon the approval of the Contracting Officer. 2) The road shall have vehicle bypass turnouts at a minimum of every 750m regardless of road width. 3) At the bypass turnout locations, the roadway width will be 9m wide gravel. 4) The length of the turnouts will be 25m with 10m tapers (see attachment B).

3.5.C. The road crosses streams and other drainage areas. Portions of the road that follow a river bed or wadi shall be re-aligned and constructed out of the river bed or wadi at an elevation greater than the anticipated 25-year water level. Bridges, culverts, gabion crossings, concrete wadi crossings or other related structures shall be constructed as required over rivers, creeks, causeways and wadis that contain water and deep drainages that fill with water during storm events. Existing drainage structures shall be replaced; exceptions may be allowed on a case by case basis if sufficient evidence is provided by the contractor by a competent engineer that shows by calculations that the culvert is properly sized hydraulically and is structurally capable of handling the design load and dead load of all required road layers for a minimum period of 25 years. The granting of exceptions are at the sole discretion of the contracting officer or contracting officer's representative.

3.5.D. Mountainous sections of road, which have steeper and longer grades, may require significant blasting, excavation, drainage and slope protection.

3.5.E. The road shall be built up above existing grade for storm water protection where necessary. Poor subgrade material shall be removed and replaced with clean, compactable, gravel. Portions of the road that follow a river bed or wadi shall be re-aligned and constructed at an elevation greater than the anticipated 25 year water level.

3.5.F. Speed humps shall be designed and installed approaching highly populated areas where the local population and businesses are located immediately adjacent to the road. Speed humps shall also be installed on the approach to police and ANA check points. Speed humps on paved roads shall be marked with high visibility traffic paint. Speed hump locations shall be shown on the plans.

3.6. SURVEY: Survey plans shall be in SI (metric) units of measurements.

3.6.A. HORIZONTAL AND VERTICAL CONTROL: Universal Transverse Mercator Grid Zone 42, World Geodetic System (WGS84) and the elevation should be height above ellipsoid (WGS84) and sea level (EGM96). If there has been gravitational surveys performed nearby, these shall be noted. A survey database file for all features should show both ellipsoid height and Geoid height and WGS84 latitude/longitude as well as UTM coordinates. WGS84 data shall be corrected to WGS84 (G1150) datum reference. GPS benchmarks shall be documented at ITRF2000 coordinates referenced to epoch 1997. Basic project control surveys will be performed using precise differential carrier-phase tracking Navstar GPS measurement procedures.

The Contractor shall submit raw GPS survey files in the RINEX format. The GPS files shall be submitted using the following naming convention for RINEX files: (ssssdddf.yyt)

ssss:	4-character station name designator
ddd:	day of the year of first record
f:	file sequence number within day
0:	file contains all the existing data of the current day
yy:	year
t:	file type:
O:	Observation file
N:	Navigation file

M:	Meteorological data file
G:	GLONASS Navigation file
H:	Geostationary GPS payload nav mess file

All of the control points established at the site shall be plotted at the appropriate coordinate point and shall be identified by name or number, and adjusted elevations. The location of the project site, as determined by the surveyor shall be submitted in writing to the Contracting Officer. The site location shall be identified by temporary markers, approved by the Contracting Officer before proceeding with the surveying work.

3.6.B. TOPOGRAPHY REQUIREMENTS:

6.B.1. A sufficient quantity of horizontal and vertical control shall be established to provide a detailed topographic survey at 1:500 scale with 1.0 meter contour intervals. Intermediate elevations shall be provided as necessary to show breaks in grade and changes in terrain.

6.B.2. The contours shall accurately express the relief detail and topographic shapes. In addition, 90 percent of the elevations or profiles interpolated from the contours shall be correct to within one-half of the contour interval and spot elevations shall be correct within plus or minus 20 millimeters.

6.B.3. Spot elevations affecting design of facilities shall be provided. Specifically, break points or control points in grades of terrain such as tops of hills, bottoms of ditches and gullies, high bank elevations, top and toe of retaining walls, flowline and headwalls of existing culverts, etc.

6.B.4. All surface and sub-surface structures features within the area to be surveyed shall be shown and identified on the topographic maps. In addition, these features shall be located by sufficient distance ties and labeled on the topographic sheets to permit accurate scaling and identification.

3.6.C. SURVEY DOCUMENTS: Survey plans shall be in SI (metric) units of measurements. Survey documents shall include, **at a minimum**, the following:

6.C.1. Topographic survey:

6.C.1.a. Complete topographic survey of existing road alignment out 15m on both sides of the road centerline, extending 100m from both ends of the proposed project.

6.C.1.b. Survey drawings shall show contours, elevations and road stationing as well as all facilities, utilities, buildings, trees, drainages and other features located in survey area

6.C.1.c. Contours shall be drawn and labeled at 0.5m intervals

6.C.1.d. Centerline profile drawings shall also be provided

6.C.1.e. Cross sections of rivers will be provided at 25M & 50m left and right of the proposed bridge alignment.

6.C.2. Cross sections:

6.C.2.a. Cross sections shall be generated at 50m intervals throughout the project.

6.C.2.b. Additional cross sections shall be provided through any existing and proposed drainage structures. These cross sections shall be obtained through the flowline of the drainage system and note the angle from the road centerline noted.

6.C.3. Profile drawings of existing alignment.

6.C.4. Overall site key map that depicts project design area with respect to the project.

6.C.5. Structure Evaluation Reports:

6.C.5.a. Structure number and Description: Include the length, width, height, materials, etc. and a photo.

6.C.5.b. Recommendation: Replace, Rehabilitate, or Remain in place as is.

6.C.5.c. Report Calculations: Overall structure evaluation. If the recommendation is other than replacement, calculations shall be provided and show that the culvert is properly sized hydraulically and is structurally capable of handling the design load and dead load of all required road layers.

3.7. DESIGN: Roads shall be constructed with a minimum cross-slope or crown of 3.0% with drainage ditches along the sides to allow good drainage and road structure protection. Bridges, culverts, gabion crossings, at-grade concrete wadi crossings or other related structures shall be constructed as required over rivers and wadis that contain water and deep drainages that fill with water during rainy season. Road sections that cross wide drainages, flood areas or wadis shall be designed and constructed with additional water and erosion control measures to allow the road to be passable during rain and flood conditions. High erosion areas, such as shallow drainage crossings and wadis, shall be armored with a hard surfaced crossing such as a reinforced concrete crossing slab. To meet the requirement of this portion of the project, the following items must be completed as a portion of the submittal:

3.7.A. DESIGN LAYOUT:

7.A.1. Design layout drawings with stationing, road curves, drainage ditches, road transitions, drainage structures (size and location), erosion structures, crossing structures, new road alignment, etc, shall be produced. Plan and profile views of project segments shall be shown on the same plan sheet.

7.A.2. Dimensions and locations of all existing and proposed features and structures shall be shown.

7.A.3. Design drawings shall show contours and stationing as well as all facilities, utilities, buildings, drainages and any other features located in the road project area.

7.A.4. Centerline stationing shall be set at intervals of 50m.

3.7.B. VERTICAL ALIGNMENT:

7.B.1. The plans shall show the vertical alignment for the finished road with the existing grade along this alignment.

7.B.2. The road shall be built up above existing grade for storm water protection. In agricultural areas, the finished road surface shall be a minimum of 450 mm above the adjoining fields to reduce the potential of damage when irrigating fields.

7.B.3. The normal road grade shall be less than 8%. The maximum road grade shall be 10%, any grade above 8% shall not be sustained for more than 100m.

7.B.4. The vertical profile shall be labeled with the following at a minimum:

Tangents	Percent of slope - Shall not exceed 10%, normal maximum grade 8%
Curves	Vertical Point of Intersection Station (VPI-S) - At an even meter stations
	Vertical Point of Intersection Elevation (VPI-E)
	Algebraic Difference (AD)
	Rate of Curvature (K) – Shall meet AASHTO minimums
	Curve Length (L) - In even meter increments
	Begin Vertical Curve Station (BVC-S)
	Begin Vertical Curve Elevation (BVC-E)
	End Vertical Curve Station (EVC-S)
	End Vertical Curve Elevation (EVC-E)
	Crest (high point) or Sag (low point) station & elevation.

3.7.C. HORIZONTAL ALIGNMENT:

7.C.1. Curves shall be eliminated or widened and the alignment of the road straightened as much as possible. The plans shall show the horizontal alignment for the finished road, to include the edge of the proposed road surface and the proposed edge of shoulder. Should existing infrastructure prevent the construction of the road to its full width as determined by the COR, the narrowed section of the proposed surface shall be labeled showing the recommended width. Should the narrowed portion of the road exceed 750m, turn outs shall be provided every 500m.

7.C.2. Switchbacks (If Required):

7.C.2.a. Shall be designed with the largest radius possible, but not less than 20 m.

7.C.2.b. Shall have a wider road section to allow vehicles to maneuver easily around the corners.

7.C.2.c. Shall have a reduced grade than the approaching road.

7.C.3. Speed humps shall be shown approaching highly populated areas where the local population and businesses are located immediately adjacent to the road. Speed humps shall also be installed on the approach to police and ANA check points.

7.C.4. The horizontal alignment shall be labeled with the following as a minimum:

Tangents	Bearing and distance on each segment
Curves	Point of Curve (PC) station
	Point of Tangent (PT) station
	Point of Intersection (PI)
	PI Station
	Deflection Angle
	Tangent (T)
	Length (L)
	Deflection Angle (Delta)
	Degree of Curve (Dc) – Shall not exceed 10 unless on a switchback, if in excess of 10, the minimum outer turning radius shall be 13m.
	Radius (R)
	Begin of Curve (BC)
	End Curve (EC)

7.C.5. Bridges, Culverts, and Drainage structures:

7.C.5.a. In addition to the data on all of the existing structures, proposed bridges, culverts and drainage/irrigation structures shall be shown. Structures shall be shown in both the plan and the profile view of the plans and will include notes on the proposed sizes.

7.C.5.b. The contractor shall provide all necessary hydrological data, drainage calculations, drainage design and grading to insure adequate drainage so that no areas will be flooded due to a rainfall of a 10-year frequency. Drainage of the area should be compatible with the existing terrain. A site grading plan shall be designed that provides positive drainage and minimizes the requirement for major structures in a cost effective manner.

7.C.5.c. Drainage structures, including bridges, culverts, and low water crossings shall be constructed where required. Culverts smaller than 1m by 1m shall not be built; low water crossings (aka fords, aka causeways) shall be built instead according to MRRD standards. All existing culverts smaller than 1m by 1m shall be replaced with low water crossings; exceptions will be considered by the contracting officer on a case by case basis. All culverts shall be equipped with a debris and trash protection device (see 01015 Attachment

A). The debris & trash device shall be installed on both ends of the culverts. The device in 01015 Attachment A is the basic design for a 1.2m by 1.2m box culvert. When constructing box culverts, space the horizontal and vertical flat bars at 80mm; under no circumstances shall a 90mm sphere be able to pass through the debris/trash screen. Larger sized box culverts shall have their debris & trash devices designed/sized accordingly.

7.C.5.d. Erosion structures shall be constructed in slide and flood areas to prevent road blockage and wash-out. New culverts shall not be less than 1m square if possible. A minimum of 300mm of compacted road sub-structure shall be placed on top of the culverts. The roadway profile shall have a smooth transition over the concrete culvert and the aggregate surface width and thickness shall be maintained throughout the crossing.

7.C.5.e. Mountainous sections of road have steeper and longer grades and may require significant drainage and slope protection. High roadside embankments shall be cut and sloped back for stability (see attached excavation safety requirement).

7.C.5.f. The design and construction of bridges shall Not include concrete parapet guard rail. Clear bridge width shall be 6 m. However, a 30 cm concrete barrier curb will be required along the edge of all bridge structures.

7.C.6. SITE GRADING:

7.C.6.a. Embankments, at approaches to curves and wadi crossings, shall be cut and sloped to allow good sight distance. Blind corners shall be corrected so oncoming traffic can be seen and to allow for better sight distance for approaching traffic with a minimum sight distance of 50m or as stated within the MRDD and MPW standards, whichever is greater.

7.C.6.b. Built up road sections (with rock or structures) shall be structurally sound to meet seismic requirements.

7.C.6.c. All site plans and master plans shall be drawn in the following projection and datum for incorporation into the U.S. Army Corps of Engineers GIS system: WGS 1984 UTM Zone 42 N

7.C.7. PLANS: Design shall be performed and design documents signed by a registered professional engineer. Calculations shall be in SI (metric) units of measurements. In addition to the survey documents, the design documents shall include, **at a minimum**, the following:

7.C.7.a. Design layout:

7.C.7.a.i. Design layout drawings with stationing, road curves, drainage ditches, designed slopes adjacent to road, cut and fill areas, road transitions, drainage structures (size and location), erosion structures, crossing structures and new road alignment

7.C.7.a.ii. Dimensions and locations of all designed features and structures shall be shown

7.C.7.a.iii. Design drawings shall show contours and stationing as well as all facilities, utilities, buildings, drainages and any other features located in the road project area

7.C.7.a.iv. Contours shall be drawn at 1.0m intervals

7.C.7.a.v. Centerline stationing shall be set at intervals of no less than 50m

7.C.7.b. Cross sections:

7.C.7.b.i. Cross section drawings at each station and additional cross sections as needed to show specific road and drainage features

7.C.7.b.ii. Cross sections shall provide design slope angles for road bed and road drainage and design slopes for areas adjacent to the road alignment

7.C.7.b.iii. Cross sections of the existing flow lines will be provided at 25m and 50m left and right at all existing and proposed culvert and bridge locations.

7.C.7.b.iv. Cross section drawings shall show the location and height of retaining walls.

7.C.7.c. Profile drawings of designed centerline alignment with the existing grade at this centerline.

7.C.7.d. Overall site key map that depicts project design area with respect to road system

7.C.7.e. Legends and notes

7.C.7.f. Drawing showing a typical cross-section:

7.C.7.f.i. Show pavement thickness, sub-base thickness, and ditching criteria

7.C.7.f.ii. Show cross slope

7.C.7.f.iii. show roadway widths

7.C.7.f.iv. Show the back angles, the slope that must be constructed from the road, based on the material type.

7.C.7.f.v. Show slopes tying into existing grade.

7.C.7.g. Detail drawings:

7.C.7.g.i. Detail drawings for all structures, erosion control, drainage ditching and any other facilities incorporated into the design. Slopes shall be designed to be stable or shall be designed with retaining structures. Details of erosion structures and bridge structures shall include engineered foundations for anchoring and materials such as cement type and mix.

7.C.7.h. Structure design:

7.C.7.h.i. All components of the structures shall be designed and constructed to support, safely, all loads without exceeding the allowable stress for the materials of construction in the structural members and connections.

7.C.7.i. Geotechnical information:

7.C.7.i.i. Design analysis with geotechnical information, identification of in-situ material, selection of road construction materials, type, analysis of structures and other road features

7.C.7.i.ii. Design analysis shall include local hydrology calculations used to determine adequacy or upgrade of existing culverts and drainages, location of new drainage structures

7.C.7.i.iii. Types of drainage structures to be used and size calculations to provide adequate capacity shall be include

7.C.7.j. Material specifications:

7.C.7.j.i. Complete specifications for materials, techniques and equipment to be used in constructing the road, including mortar mixes, road gravels, aggregates, etc.

3.7.D. STRUCTURAL: The contractor shall provide designs, specifications, and analysis showing the reinforcement, concrete and bituminous asphalt placement and compaction test of soil.

7.D.1. GENERAL: The project may include erosion control structures, water diversion structures, box culverts, water crossing pavements, retaining walls or bridge structures.

7.D.2. BRIDGE AND CULVERT INSPECTIONS: All existing bridges shall be inspected for structural soundness, to ensure that each one can meet the required 12,000 kg loading. Upon completion of the bridge inspections, the Contractor shall determine if the bridge needs to be replaced, rehabilitated, or is adequate and provide their findings, along with the required technical analysis, as part of the 50%, 90% and 100% submittals. The Contractor's report shall include pictures, findings, analysis and recommendations that will clearly depict the condition of the bridge and actions needed, if any.

7.D.3. DEAD AND LIVE LOADS: Dead loads consist of the weight of all materials of

construction incorporated in the structures. Live loads used for design shall be in accordance with the American Society of Civil Engineers, ASCE STANDARD or AASHTO whichever is more stringent, and Minimum Design Loads for Buildings and Other Structures, ASCE 7, edition as referenced herein.

7.D.4. WIND LOADS: Wind loads shall be calculated in accordance with ASCE 7 using a "3-second gust" wind speed of 125 km/hr. All facilities shall be classified as a minimum of Category II in accordance with Table 1-1 in ASCE 7, referenced herein.

7.D.5. SEISMIC: Structures and all parts thereof shall be designed for Seismic Zone 4. The computation of seismic loads shall be based on using Spectral Ordinates $S_s = 0.65g$ & $S_1 = 0.25g$.

7.D.6. STRUCTURAL STEEL: Structural steel shall be designed and constructed in accordance with the provisions of American Institute of Steel Construction (AISC). Design of cold-formed steel structural members shall be in accordance with the provisions of American Iron and Steel Institute (AISI) and Specifications for Design of Cold-Formed Steel Structural Members.

3.7.E. GEOTECHNICAL: Existing geotechnical information is not available for the road sites included in the project. Any site-specific geotechnical data required to develop foundations, materials, earthwork, and other geotechnical related design and construction activities for this project shall be the Contractor's responsibility. The Contractor shall develop all pertinent geotechnical design and construction parameters by appropriate field and laboratory investigations and analyses.

3.7.F. CONSTRUCTION: Construction requirements include the following as a **minimum**:

7.F.1. Equipment shall be in good working order and shall be operated safely at all times.

7.F.2. Crusher material shall be hard rock. Shale, sandstone, mudstone and soft rock shall not be used for crushed material product.

7.F.3. Cement and mortar mixes shall be mixed proportionally as designed with a cement mixer. If cement is hand mixed, it shall be measured carefully and kept segregated from the adjacent ground area to prevent contamination.

7.F.4. All rock structures shall be mortared completely between each rock. Mortar shall not be allowed to dry out during the construction process.

7.F.5. Dry-stacked rock construction is not acceptable or allowed. Existing dry stacking must be removed. All erosion control walls and structural elements constructed with rock shall be fully mortared. Loose rip rap without mortar may be used only for river embankment stabilization.

7.F.6. Mortar shall be a mix, by volume, of 1 part cement to 3 parts of damp, loose mortar sand. Enough water shall be added to make the mortar a workable consistency that is not too dry. Dried out mortar shall be discarded and shall not be re-used.

7.F.7. Road embankments adjacent to rivers shall be armored to prevent erosion.

-- END OF SECTION --

SECTION 01060**SECTION 01060
SPECIAL CLAUSES****PART 1 - GENERAL:****1.1. PRECONSTRUCTION CONFERENCE:**

1.1.A. Schedule of Meeting: At the earliest practicable time, prior to commencement of the work, the Contractor and any Subcontractors whose presence is necessary or requested, shall meet in conference with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to the details of the administration and execution of this contract. This will include but not necessarily be limited to the Contractor's Quality Control (CQC) Program, the Contractors Accident Prevention Program, submittals, correspondence, schedule, access to the work site, security requirements, interface requirements, temporary facilities and services, hazards and risks, working after normal hours or on weekends or holidays, assignment of inspectors, representations, special requirements, phasing, and other aspects of this project that warrant clarification and understanding.

1.1.B. Meeting Minutes: It shall be the responsibility of the Contractors CQC System Manager to prepare detailed minutes of this meeting and submit those minutes to the Contracting Officer for approval within three (3) workdays. Any corrections deemed necessary by the Contracting Officer shall be incorporated and resubmitted within two (2) calendar days after receipt. Upon approval of the minutes by the Contracting Officer, the Contractor shall distribute the minutes to all parties present or concerned.

1.2. TRAFFIC:

1.2.A. Protection and Maintenance of Traffic: During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the Host Nation and base authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with regular road traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.2.B. Barricades: Barricades shall be required whenever safe public access to paved areas such as roads or parking areas is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night. Travel to and from the project site shall be restricted to a route approved by the Contracting Officer.

1.2.C. Host Nation Authorizations, Permits and Licenses: It shall be the Contractor's responsibility to obtain such local authorizations, permits and licenses necessary to establish his quarry operations, batching operations and haul routes (See Special Clause entitled: COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS).

1.3. RESPONSIBILITY FOR PHYSICAL SECURITY: Prior to mobilization, the Contractor shall submit his proposed means of providing project security to prevent unauthorized access to equipment, facilities, materials and documents, and to safeguard them against sabotage, damage, and theft. The Contractor shall be responsible for physical security of all materials, supplies, and equipment of every

description, including property which may be Government-furnished or owned, for all areas occupied jointly by the Contractor and the Government, as well as for all work performed. The plan shall address in detail the contractors proposed procedures, and organization necessary to produce and maintain effective security within the contract limits twenty-four (24) hours a day seven (7) days a week. This document shall be referred to as the Security Plan submittal (reference section 01335). The plan shall contain the names, photos, and tazkira numbers of security personnel, those personnel with access to weapons and those persons who will be handling or transporting explosives. As part of the security plan, the contractor shall continually submit the coordinates of the contractors base camps, quarries, and current work locations.

1.4. PREPARATION OF AS-BUILT DRAWINGS (CONTRACTOR):

1.4.A. General: Upon completion of each road under this contract, the Contractor shall prepare and furnish as-built drawings to the Contracting Officer. The as-built drawings shall be a record of the construction as installed and completed by the Contractor. They shall include all the information shown on the contract set of drawings, and all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the work, including all additional work not appearing on the contract drawings, and all changes which are made after any final inspection of the contract work. In the event the Contractor accomplished additional work that changes the as-built conditions of the road after submission of the final as-built drawings, the Contractor shall furnish revised and/or additional drawings and drawing files as required depicting final as-built conditions. The requirements for these additional drawings shall be the same as for the as-built drawings specified in this paragraph.

1.4.B. Final As-Built Drawings: The Contractor shall update the digital contract drawing files to reflect the approved final as-built conditions and shall furnish those updated drawing files and plots of the final as-built drawings to the Contracting Officer. *As-built drawings shall include the addition of the predominant native language of the region in addition to the English language.*

4.B.1. Only personnel proficient in the use of Computer Assisted Design and Drafting (CADD) for the preparation of drawings shall be employed to modify the contract drawing files or prepare new drawing files.

4.B.2. Existing digital drawing files shall be updated to reflect as-built conditions. Independent drawing files containing only as-built information are not acceptable. The modifications shall be made by additions and deletions to the original drawing files, and where additional drawings are necessary, they shall be developed in individual digital files for each new drawing. All additions and corrections to the contract drawing files shall be clear and legible, and shall match the adjacent existing line work and text in type, size, weight, and style. New or revised information placed into the design files shall be placed on the levels and in the colors used for placement of the corresponding initial data. Similarly, the drawing size, title block, and general format of new drawings shall be consistent with the format established by the original drawings.

4.B.3. In the preparation of as-built drawings, the Contractor shall remove "Bubbles" used by the Government to highlight drawing changes made during design/construction. Triangles associated with those earlier drawing changes shall be left on the drawings and the Contractor shall not add triangles to designate modifications associated with representation of the as-built condition. The revision block identification of the drawing modifications shall be left intact and the date of completion and the words "REVISED AS-BUILT" shall be placed in the revision block above the latest existing notation. Each drawing shall have the words "DRAWING OF WORK AS-BUILT" in letters 4.5 mm (3/16") high placed below the drawing title portion of the drawing title block, between the border and the trim line.

4.B.4. The Contractor shall check all final as-built drawing files for accuracy, conformance to the initial drawing scheme and the above instructions. The Contracting Officer will review the drawings and drawing files for conformance to these standards.

4.B.5. The Contractor shall furnish the digital as-built drawing files in the format native to either AutoDesk AutoCAD 2004 or Bentley Microstation version 8 (which is easily convertible in both directions to/from AutoCAD). The Government will only accept the final product for full

operation, without conversion or reformatting, in these formats.

4.B.6. Digital drawing files shall be furnished to the Contracting Officer on CD-ROM or other media and format as approved by the Contracting Officer. A transmittal sheet containing the name of the files, the date of creation, the CD-ROM number, and a short description of the contents, shall accompany the CD-ROM.

4.B.7. A sample drawing shall be furnished to the Contracting Officer before delivery of final as-built drawings as a test to demonstrate compliance with the above instructions and file format compatibility with the described CADD software.

4.B.8. One (1) complete set of the updated final Record Copy digital drawing files and one (1) paper plot or copy of the final Record drawings shall be delivered to the Contracting Officer upon completion of each road. If upon review of the final as-built drawings, errors or omissions are found, the drawings and drawing files will be returned to the Contractor for corrections. The Contractor shall complete the corrections and return both the digital files and the as-built prints to the Contracting Officer within ten (10) calendar days.

1.5. CERTIFICATES OF COMPLIANCE: Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in accordance with Section 01335 SUBMITTAL PROCEDURES FOR DESIGN/BUILD. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company involved and shall contain the name and address of the Contractor, the project name and location, description and the quantity of the items involved, and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material.

1.6. ACCIDENT PREVENTION: The Contractor shall comply with all applicable Host Country laws and with such additional measures as the Contracting Officer may find necessary in accordance with CONTRACT CLAUSE 52.236-13 entitled ACCIDENT PREVENTION (NOV1991)-ALTERNATE 1 (APR 1984). Applicable provisions of the Corps of Engineers manual entitled Safety and Health Requirements Manual EM 385-1-1 will be applied to all work under this contract. The referenced manual may be obtained from the Contracting Officer at the jobsite or from the Afghanistan Engineer District at Kabul, Afghanistan.

1.6.A. Accident Prevention Program: Within fifteen (15) days after award of this task order, and at least ten (10) days prior to the accident prevention pre-work conference, four (4) copies of the Accident Prevention Plan required by the CONTRACT CLAUSE 52.236-13 entitled ACCIDENT PREVENTION (NOV 1991)- ALTERNATE I shall be submitted for review by the Contracting Officer. The Contractor shall not commence physical work at the site until the Accident Prevention Plan (APP) has been reviewed and accepted by the Contracting Officer. The APP shall meet the requirements listed in Appendix "A" of EM385-1-1. The program shall include the following: "Activity Hazard Analysis (Activity Hazard Analysis)" fully completed and signed by an executive officer of the company in block No. 13. The Activity Hazard Analysis is a method in which those hazards likely to cause a serious injury or fatality are analyzed for each phase of operations. Corrective action is planned in advance, which will eliminate the hazards. An analysis is required for each new phase of work. On large or complex jobs the first phase may be presented in detail with the submittal of the Accident Prevention Plan rather than presenting the complete analysis. If the plan is to be presented in phases, a proposed outline for future phases must be submitted as a part of the initial Accident Prevention Plan submittal. Accident Prevention Plans will be reviewed for timeliness and adequacy at least monthly with a signature sheet signed and dated documenting that these reviews took place. Accident Prevention Plan shall include a copy of company policy statement of Accident Prevention and any other guidance as required by EM 385-1-1, Appendix A.

1.7. HAZARDOUS MATERIALS: Should the Contractor encounter asbestos or other hazardous materials, during the construction period of this contract, he shall immediately stop all work activities in the area where the hazardous material is discovered. The Contractor shall then notify the Contracting Officer; identify the area of danger; and not proceed with work in that area until given approval from the Contracting Officer to continue work activities. Hazardous material is considered to be asbestos,

explosive devices, toxic waste, or material hazardous to health and safety. The Contractor shall secure the area from daily traffic until it is safe to resume normal activities.

1.8. TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER:

1.8.A. General: This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the Contract Clause 52.249-10 entitled DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984. The listing below defines the anticipated monthly unusually severe weather for the contract period and is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the geographic location of the project. The schedule of anticipated unusually severe weather will constitute the baseline for determining monthly weather time evaluations. Upon award of this contract and continuing throughout the contract each month, actual unusually severe weather days will be recorded on a calendar day basis (including weekends and holidays) and compared to the monthly anticipated unusually severe weather in the schedule below. The term "actual unusually severe weather days" shall include days actually impacted by unusually severe weather. The Contractor's schedule must reflect the anticipated unusually severe weather days on all weather dependent activities.

1.8.B. MONTHLY ANTICIPATED UNUSUALLY SEVERE WEATHER CALENDAR DAYS:

8.B.1. January	4 Days
8.B.2. February	2 Days
8.B.3. March	2 Days
8.B.4. April thru December	0 Days

1.8.C. Time Extensions: The number of actual unusually severe weather days shall be calculated chronologically from the first to the last day in each month. Unusually severe weather days must prevent work for fifty percent (50%) or more of the Contractor's workday and delay work critical to the timely completion of the project. If the number of actual unusually severe weather days exceeds the number of days anticipated in the paragraph above, the Contracting Officer will determine whether the Contractor is entitled to a time extension. The Contracting Officer will convert any qualifying delays to calendar days and issue a modification in accordance with the Contract Clause 52.249-10 entitled DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984.

1.8.D. Other Delays: Construction delays due to full or partial base closures due to incidents such as demonstrations, civil unrest and outright attacks will be examined on an individual basis for consideration of time extensions.

1.9. COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS: The laws of Host Country may prohibit access to certain areas of the country that are under military control. The Contractor shall furnish the Contracting Officer the names of personnel, type, and amounts of equipment, dates and length of time required at the site, and the purpose of entering the host country. It is understood that areas to which rights of entry are provided by the Host Government are to be used only for work carried out under the contract and no destruction or damages shall be caused, except through normal usage, without concurrence of the Host Government.

1.9.A. Contractor's Responsibilities: The following items are the sole responsibility of the Contractor to investigate, estimate as to cost, and assume the risk, as normally encountered by Contractors. The Contractor shall be responsible for determining the effect of the following on his own cost of performance of the contract and for including sufficient amount in the contract price:

9.A.1. Official language and type of accounts required to satisfy the officials of the Local Government.

9.A.2. Entry and exit visas, residence permits, and residence laws applicable to aliens. This includes any special requirements of the Host Government, including those required by local Labor Offices, which the Contractor may have to fulfill before an application for a regular block of visas will be accepted.

9.A.3. Passports, health and immunization certificates, and quarantine clearance.

9.A.4. Compliance with local labor and insurance laws, including payment of employer's share of contribution, collecting balance from employee and paying into insurance funds.

9.A.5. Strikes, demonstrations and work stoppage.

9.A.6. Collection through withholding and payment to local Government, of any Host Country income tax on employees subject to tax.

9.A.7. Arranging to perform work in the Host Country, to import personnel, to employ non-indigenous labor, to receive payments and to remove such funds from the country.

9.A.8. Operating under local laws, practices, customs and controls, and with local unions, in connection with hiring and firing, mandatory wage scales, vacation pay, severance pay, overtime, holiday pay, 7th day of rest, legal notice or pay in lieu thereof for dismissal of employees, slowdown and curtailed schedules during religious holidays and ratio of local labor employed in comparison to others.

9.A.9. Possibility of claims in local bureaus, litigation in local courts, or attachment of local bank accounts.

9.A.10. Compliance with workmen's compensation laws and contributions into funds. Provisions of necessary medical service for Contractor employees.

9.A.11. Special license required by the local Government for setting up and operating any manufacturing plant in the Host Country, e.g. concrete batching, precast concrete, concrete blocks, etc.

9.A.12. Sales within the host country of Contractor-owned materials, and equipment.

9.A.13. Special licenses for physicians, mechanics, tradesmen, drivers, etc.

9.A.14. Identification and/or registration with local police of imported personnel.

9.A.15. Stamp tax on documents, payments and payrolls.

9.A.16. NOT USED

9.A.17. Compliance with all customs and import rules, regulations and restrictions, including, but not limited to, local purchase requirements.

1.9.B. Contractor Vehicles: Contractor vehicles shall be maintained in a good state of repair, shall be insured, licensed and registered in accordance with Afghan Law.

1.10. PUBLIC RELEASE OF INFORMATION:

1.10.A. Prohibition: There shall be no public release of information or photographs concerning any aspect of the materials or services relating to this bid, contract, purchase order, or other documents resulting there from without the prior written approval of the Contracting Officer.

1.10.B. Subcontract and Purchase Orders: The Contractor agrees to insert the substance of this clause in all purchase orders and subcontract agreements issued under this contract.

1.11. RIGHT-OF-WAY (ROW) & LAND ACQUISITION:

1.11.A. COMMUNITY COORDINATION: In accordance with specification 01010 (SOW), section 1.2, the contractor is required to meet with local and provincial officials. At these meetings the required road width and road ROW shall be brought up as a subject and discussed.

1.11.B. CONTRACTOR RESPONSIBILITIES: It is the responsibility of the contractor to verify required road ROW and resolve all ROW issues that arise for the project. It is within the Design-Build scope to propose alternate routes when land issues cannot be resolved. The contractor shall keep the Government informed of all ROW and real estate issues both resolved and unresolved for the duration of the contract in a timely manner.

1.12. ATTACHMENTS:

1.12.A. Activity Hazard Analysis

-- End of Section --

SECTION 01312**SECTION 01312****QUALITY CONTROL SYSTEM (QCS)****PART 1 - GENERAL**

1.1. GENERAL: The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract.

1.1.A. QCS: QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

1.1.A.1. ADMINISTRATION

1.1.A.2. FINANCES

1.1.A.3. QUALITY CONTROL

1.1.A.4. SUBMITTAL MONITORING

1.1.A.5. SCHEDULING

1.1.A.6. IMPORT/EXPORT OF DATA

1.1.B. Correspondence and Electronic Communications: For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.C. Other Factors: Particular attention is directed to specifications "SUBMITTAL PROCEDURES", "CONTRACTOR QUALITY CONTROL", "PROJECT SCHEDULE", and Contract Clause, "Payments", which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2. QCS SOFTWARE: QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on 3-1/2 inch high-density diskettes or CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3. SYSTEM REQUIREMENTS: The following is the minimum system configuration that the Contractor shall have to run QCS:

1.3.A. QCS and QAS System Hardware: IBM-compatible PC with 1000 MHz Pentium or higher processor 256+ MB RAM for workstation / 512+ MB RAM for server 1 GB hard drive disk space for sole use by the QCS system 3 1/2 inch high-density floppy drive Compact Disk (CD) Reader 8x speed or higher SVGA or higher resolution monitor (1024x768, 256 colors) Mouse or other pointing device Windows compatible printer. (Laser printer must have 4 MB+ of RAM) Connection to the Internet, minimum 56k BPS.

1.3.B. Software: MS Windows 2000 or higher QAS-Word Processing software: MS Word 2000 or

newer Latest version of: Netscape Navigator, Microsoft Internet Explorer or other browser that supports HTML 4.0 or higher Electronic mail (E-mail) MAPI compatible Virus protection software that is regularly upgraded with all issued manufacturer's updates.

1.4. RELATED INFORMATION:

1.4.A. QCS User Guide: After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.B. CONTRACTOR QUALITY CONTROL (CQC) TRAINING: The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

1.5. CONTRACT DATABASE: Prior to the pre-construction conference, the Government shall provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6. DATABASE MAINTENANCE: The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATASUBMISSION VIA COMPUTER DISKETTE OR CD-ROM). The QCS database typically shall include current data on the following items:

1.6.A. ADMINISTRATION:

1.6.A.1. CONTRACTOR INFORMATION: The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within fourteen (14) calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.A.2. SUB CONTRACTOR INFORMATION: The database shall contain the name, trade, address, phone numbers, and other required information for all sub Contractors. A sub Contractor must be listed separately for each trade to be performed. Each sub Contractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within fourteen (14) calendar days of receipt of QCS software from the Government, the Contractor shall deliver sub Contractor administrative data in electronic format via E-mail.

1.6.A.3. CORRESPONDENCE: All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home(main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.A.4. EQUIPMENT: The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.A.5. MANAGEMENT REPORTING: QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.B. FINANCES:

1.6.B.1. PAY ACTIVITY DATA: The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.B.2. PAYMENT REQUESTS: All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.C. QUALITY CONTROL (QC): QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01451, Contractor QUALITY CONTROL. Within seven (7) calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.C.1. DAILY CONTRACTOR QUALITY CONTROL (CQC) REPORTS: QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by Section 01451, Contractor QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.C.2. DEFICIENCY TRACKING: The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.C.3. THREE-PHASE CONTROL MEETINGS: The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.C.4. ACCIDENT/SAFETY TRACKING: The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

1.6.C.5. FEATURES OF WORK: The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.C.6. REQUIREMENTS: The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.D. SUBMITTAL MANAGEMENT: The Government will provide the initial submittal register in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.E. SCHEDULE: The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Specification Section Project Schedule. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF). The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.F. IMPORT/EXPORT OF DATA: QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.7. IMPLEMENTATION: Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8. DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM: The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function. If used, diskettes and CD-ROMs will be submitted in accordance with the following:

1.8.A. FILE MEDIUM: The Contractor shall submit required data on 3-1/2 inch double-sided high-density diskettes formatted to hold 1.44 MB of data, capable of running under Microsoft Windows 95 or newer. Alternatively, CD-ROMs may be used. They shall conform to industry standards used in the United States. All data shall be provided in English.

1.8.B. DISK OR CD-ROM LABELS: The Contractor shall affix a permanent exterior label to each diskette and CD-ROM submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.C. FILE NAMES: The Government will provide the file names to be used by the Contractor with the QCS software.

1.9. MONTHLY COORDINATION MEETING: The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10. NOTIFICATION OF NONCOMPLIANCE: The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

PART 2 - PRODUCTS: (NOT APPLICABLE)

PART 3 - EXECUTION: (NOT APPLICABLE)

-- End of Section -

SECTION 01321**SECTION 01321****PROJECT SCHEDULE****PART 1 - GENERAL:**

1.1. SUBMITTALS: The following shall be submitted for Government approval in accordance with Section 01335 SUBMITTAL PROCEDURES: SD-07 Schedules Project Schedule; Horizontal Bar Chart and Periodic Payment Request Updates; and Projected Earnings Curve and Periodic Payment Request Updates. Revisions to the Project Schedule and Projected Earnings Curve for Modifications Issued to this Contract shall be coordinated with the Contracting Officer Representative (COR).

PART 2 - PRODUCTS: (Not Applicable)**PART 3 - EXECUTION:**

3.1. GENERAL: The Contractor shall furnish a Project Schedule as described below. The scheduling of construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project should also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

3.2. BASIS FOR PAYMENT: The schedule shall be the basis for measuring Contractor progress. Lack of an approved schedule or scheduling personnel shall result in an inability of the COR to evaluate Contractor progress for the purposes of payment. Failure of the Contractor to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission and the inability of the COR to evaluate Contractor progress for payment purposes. In the case where Project Schedule revisions have been directed by the COR and those revisions have not been included in the Project Schedule, then the COR may hold retainage up to the maximum allowed by contract, each payment period, until revisions to the Project Schedule have been made.

3.3. PROJECT SCHEDULE:

3.3.A. SCHEDULE OF CONSTRUCTION: Within seven (7) calendar days after notice to proceed (NTP), the Contractor shall submit a construction schedule to the COR for approval. This schedule shall address each payment line item and/or sub-line item listed in the Proposal Schedule separately.

3.3.B. NON-COMPLIANCE: Failure of the Contractor to comply with the requirements of the COR shall be grounds for determination by the COR that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the COR may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

3.3.C. HORIZONTAL BAR CHART: The required schedule shall utilize an automated scheduling program and shall be in the form of a horizontal bar chart. The line or sub-line item schedule of activities shall be listed down the left side of the page. A time scale shall run across the bottom of the page. Each work item shall be represented by a bar starting with the schedule start date and running continuously to the completion date.

3.3.D. COST: Listed with each work item shall be a corresponding cost representing the total cost, such as material, labor, equipment, and overhead associated with that item. The total cost of the work items shall be equal to the Bid Price for that sub-line item of the Proposal Schedule.

3.3.E. SCHEDULED PROJECT COMPLETION: The schedule interval shall extend from Notice-To-Proceed to the contract completion date.

3.3.F. PROJECTED EARNING CURVE: Submitted with the Construction Schedule shall be a Projected Earning Curve. The Projected Earning Curve is a plot of the Contractor's earnings on the vertical axis and the contract duration on the horizontal axis. The earnings figure shall relate to the complete value of the contract and need not reflect each facility separately.

3.3.G. CONSTRUCTION SCHEDULE: The Construction Schedule shall be on one page with a maximum dimension of 90 cm by 120 cm. The Contractor shall submit the Projected Earnings Curve on the same page. The initial submittal shall include one (1) reproducible and four (4) copies, one (1) copy of which will be returned to the Contractor when approved.

3.3.H. SUBMISSION WITH PARTIAL PAYMENT ESTIMATE: Each time the Contractor submits a payment request under this contract he shall also submit three (3) copies of the Bar Chart. The Bar Chart shall be annotated by indicating the percent complete for each activity directly on the bar. The Projected Earnings Curve shall be annotated by plotting actual earnings versus time on the same graph. Those work items reflecting performance which is behind schedule by fifteen (15) calendar days or more shall be fully explained in detail giving the reason for delay and the Contractor's plan for timely completion within the schedule.

3.3.I. MODIFICATIONS: The Construction Schedule and Projected Earning Curve shall be revised to reflect any and all modifications issued to this contract as they are issued. Format and numbers of copies as defined in paragraph CONSTRUCTION SCHEDULE shall be submitted for approval by the COR.

3.4. PERIODIC PROGRESS MEETINGS: Progress meetings to discuss payment shall include a monthly on-site meeting or shall be conducted at other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor shall describe, on an activity-by-activity basis, all proposed revisions and adjustments to the project schedule required to reflect the current status of the project. The COR will approve activity progress, proposed revisions, and adjustments as appropriate.

3.4.A. UPDATE SUBMISSION FOLLOWING PROGRESS MEETING: A complete update of the project schedule containing all approved progress, revisions, and adjustments, based on the regular progress meeting, shall be submitted not later than four (4) working days after the monthly progress meeting.

3.4.B. PROGRESS MEETING CONTENTS: Update information, including Actual Start Dates, Actual Finish Dates, Remaining Durations, and Cost to Date, shall be subject to the approval of the COR.

3.4.C. EARNINGS REPORT: A compilation of the Contractor's Total Earnings on the project from the Notice-to-Proceed until the most recent Monthly Progress Meeting shall be recorded. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and the COR at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. This report shall: sum all activities and provide a percent complete by individual activity and total project percent complete. The report shall contain, for each activity: activity identification, activity description, original budgeted amount, total quantity, quantity to date, percent complete (based on cost), and earnings to date.

3.4.D. COST COMPLETION: The earnings for each activity started shall be reviewed. Payment shall be based on earnings for each in-progress or completed activity. Payment for individual activities shall not be made for work that contains quality defects. A portion of the overall project amount may be retained based on delays of activities.

3.4.E. NETWORK ANALYSIS SYSTEM: The Contractor may, as an option, submit to the COR for approval, a time related network analysis in lieu of the previously specified bar chart.

-- End of Section --

SECTION 01335
SUBMITTAL PROCEDURES FOR PROJECTS

PART 1 - GENERAL:

1.1. REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referenced to in the text by basic designation only.

CONSTRUCTION SPECIFICATIONS INSTITUTE

Manual of Practice
Construction Specifications Institute
http://www.csinet.org/s_csi/index.asp
601 Madison Street
Alexandria, Virginia
22314-1791

NATIONAL INSTITUTE OF BUILDING SCIENCES (NIBS)

Unified Master Reference List (UMRL)
National Institute of Building Sciences
1090 Vermont Avenue, NW, Suite 700
Washington, DC 20005-4905
Email: nibs@nibs.org
FAX: (202) 289-1092
Tele: (202) 289-7800

1.2. SUBMITTAL CLASSIFICATION: Refer to the *Submittal Distribution and Quantities Table* in Attachment A for minimum submission requirements and delivery address. Submittals are classified as follows:

1.2.A. DESIGN SUBMITTALS: The Government reserves the right to issue an NTP (notice to proceed) for any phase for fast-track projects.

1.2.B. CONSTRUCTION SUBMITTALS:

1.2.B.1. Contractor Furnished Government Approved Construction Submittals:

Government approved construction submittals are primarily related to plans (Contractor Quality Control, Accident Prevention, Resident Management System, Area Use, etc.) schedules (Project Schedule/Network Analysis), and certificates of compliance.

1.3. SUBMITTAL CERTIFICATION: The CQC organization shall be responsible for certifying that all submittals and deliverables have been reviewed in detail for completeness, are correct, and are in strict conformance with the contract drawings, specifications, and reference documents.

1.3.A. DETERMINATION OF COMPLIANCE: Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer. The contractor shall submit all required documentation with submittals. The U.S. Army Corps of Engineer (USACE) will not accept partial submittals.

1.3.B. EFFECTIVE QUALITY CONTROL SYSTEM: The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with Contract Clause 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION - ALTERNATE I and specification section 01451 CONTRACTOR QUALITY CONTROL.

1.3.B.1. ORGANIZATIONAL RESPONSIBILITY: The quality control system shall cover all design, construction, subcontractor, manufacturer, vendor, and supplier operations at any tier, both onsite and offsite.

1.3.B.2. CQC SYSTEM MANAGER REVIEW AND APPROVAL: Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager. If found to be in strict conformance with the contract requirement, each item shall be stamped,

signed, and dated by the CQC System Manager. Copies of the CQC organizations review comments indicating action taken shall be included within each submittal.

1.3.B.3. DETERMINATION OF COMPLIANCE: Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer. The contractor shall submit all required documentation with submittals. The U.S. Army Corps of Engineer (USACE) will not accept partial submittals.

1.3.C. RESPONSIBILITY FOR ERRORS OR OMISSIONS: It is the sole responsibility of the Contractor to ensure that submittals comply with the contract documents. Government review, clearance for construction, or approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract.

1.3.C.1. GOVERNMENT REVIEW: Government review or approval of post assessment submittals shall not be construed as a complete check, but will indicate only that the assessment is satisfactory.

1.3.D. SUBSTITUTIONS: After design submittals have been reviewed and cleared for construction by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless justified as indicated in the paragraph entitled VARIATIONS.

1.3.E. ADDITIONAL SUBMITTALS: In conjunction with Contract Clause 52.236-5 MATERIAL AND WORKMANSHIP, the Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work.

1.3.F. UNTIMELY AND UNACCEPTABLE SUBMITTALS: If the Contractor fails to submit submittals in a timely fashion, or repetitively submits submittals that are not in strict conformance with the contract documents, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.3.G. STAMPS: Stamps shall be used by the Contractor on all design and post design construction submittals to certify that the submittal meets contract requirements and shall be similar to the following:

1.3.G.1. Contractor (Firm Name)

1.3.G.2. Contract Number

1.3.G.3. Contract Name

1.3.G.4. I certify that this submittal accurate, is in strict conformance with all contract requirements, has been thoroughly coordinated and cross checked against all other applicable disciplines to prevent the omission of vital information, that all conflicts have been resolved, and that repetition has been avoided and, it is complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer.

1.3.G.5. Name of CQC System Manager:

1.3.G.6. Signature of CQC System Manager:

1.3.G.7. Date:

1.4. ENGLISH LANGUAGE: All schedules, drawings, photographs, and assessments shall be in the English language.

1.5. UNITS OF MEASUREMENT: Design documents shall be prepared in METRIC MEASUREMENTS. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960.

1.5.A. DRAWINGS:

1.5.A.1. All site layout data shall be dimensioned in meters or coordinates, as appropriate. All details and pipe sizes shall be dimensioned in millimeters.

1.5.A.2. All site plans shall be geo-referenced using the WGS 1984 coordinate system, specifically the following: WGS 1984 UTM one 42 N. If the designer is not able to use the stated coordinate system the coordinate system used shall be correlated to the stated coordinate system. A table shall be provided within the site drawing set cross referencing the WGS84 system to that utilized. This is required to allow AED to incorporate the plans into GIS for storage, map production, and possible geospatial analysis of the different work sites.

1.5.B. DESIGN CALCULATIONS: Calculations shall be in English or SI units as deemed appropriate by the designer to meet the requirements of the design. Calculations shall be in SI (metric) units to meet the requirements of the design. Quantities on the contract drawings stated in SI (metric) units, may also be stated in English units.

1.6. WITHHOLDING OF PAYMENT FOR SUBMITTALS:

1.6.A. DESIGN SUBMITTALS: Payment for work will not be made in whole or in part until the Government has reviewed and cleared design for construction.

1.6.B. CONSTRUCTION SUBMITTALS: Payment for materials incorporated in the work will not be made if required approvals have not been obtained. In event under separate clause of the contract, the Design-Build Contractor is allowed partial or total invoice payment for materials shipped from the Continental United States (CONUS), and/or stored at the site, the Design-Build Contractor shall with his request for such payment, submit copies of approvals (ENG Form 4025) certifying that the materials that are being shipped and/or stored have been approved and are in full compliance with the contract technical specifications.

PART 2 - PRODUCTS:

2.1. GENERAL: The following are contract deliverables which give further details about and finalize the design parameters/requirements outlined within the contract documents. They shall be prepared in such a fashion that the Prime Contractor is responsible to the Government and not as an internal document between the Prime Contractor and its Subcontractors, Vendors, Suppliers, etc.

2.2. SUBMITTAL REQUIREMENTS: There are a total of 4 design submittals and 1 construction submittal (see Appendix A for quantities, media and submittal methods) required for this project.

2.2.A. SURVEY REPORT REVIEW (15%): The Survey Report Review (15%) plans shall be completed and submitted for review not more than 30 days from the NTP date.

2.2.A.1. Full topographical survey.

2.2.A.1.a. Existing horizontal and vertical layout.

2.2.A.1.b. Existing drainage structures.

2.2.A.1.c. Existing road cross sections.

2.2.A.2. Cross sections of all rivers, streams, and wadis 25m & 50m from centerline of the road, upstream and downstream. These cross sections shall be the centerline of the feature and not of the road.

2.2.A.3. Individual drainage structure reports:

2.2.A.3.a. Properties:

2.2.A.3.a.i Assigned number & station.

2.2.A.3.a.ii Length.

2.2.A.3.a.iii Width.

2.2.A.3.a.iv Height.

2.2.A.3.a.v Materials.

2.2.A.3.a.vi Photo.

2.2.A.3.b. Recommendation: Narrative on whether to replace, rehabilitate, or remain in place as is.

2.2.A.3.c. Calculations: For structures not recommended for replacement, provide sufficient evidence and calculations to support the recommendation. Necessary calculations include, but are not limited to:

2.2.A.3.c.i Hydraulic capacity and sizing.

2.2.A.3.c.ii Structural capacity and ability to handle design load and dead load of all required road layers.

2.2.A.3.c.iii Detailed repair plan with narrative and drawings.

2.2.B. DESIGN REVIEW (50%): The Design Review (50%) plans shall be completed and submitted for review not more than 60 days from the NTP date. All submittals shall be provided digitally and on paper as described in Attachment A. Based on sound professional engineering considerations, cost and other factors described in section 01015 the contractor shall prepare the documents described below. Section 01015, Technical Requirements, describes specific information that must be included. The plans shall include but not necessarily limited to:

2.2.B.1. Site Assessment

2.2.B.2. Cover

2.2.B.3. Table of Contents

2.2.B.4. Written portion that provides pertinent data on the following topics:

2.2.B.4.a. General information about the local village(s)

2.2.B.4.b. Tribal information

2.2.B.4.c. Temperature range

2.2.B.4.d. Snow and rainfall information

2.2.B.4.e. Existing road conditions

2.2.B.4.f. Existing drainage and erosion areas

2.2.B.4.g. Security conditions

2.2.B.4.h. Table of drainage structures:

2.2.B.4.h.i Structure number

2.2.B.4.h.ii Structure type (bridge, culvert, etc)

2.2.B.4.h.iii Dimensions

2.2.B.4.h.iv Structure stationing

2.2.B.4.h.v Structure location (grid coordinates)

2.2.B.4.h.vi Size and skew

2.2.B.4.h.vii Notes on condition

2.2.B.4.i. Photographs shall be inserted into a Microsoft Word document and labeled with the following:

2.2.B.4.i.i Date photo take (unless on the photo)

2.2.B.4.i.ii Location photo take from

2.2.B.4.i.iii Direction facing when photo taken

2.2.B.4.i.iv Description of specific notable items shown in photo

2.2.B.4.j. Survey field notes (If using a total station, the raw data shall also be provided)

2.2.B.5. Drawings:

2.2.B.5.a. Cover sheet

2.2.B.5.b. Name of project

2.2.B.5.c. Name of submittal (ie 50% Design Review)

2.2.B.5.d. US Army Corps of Engineers Afghanistan Engineer District name and symbol

- 2.2.B.5.e.** Contractor name
- 2.2.B.5.f.** Table of Contents
- 2.2.B.5.g.** Legend of symbols and lists of abbreviations
- 2.2.B.5.h.** Superelevation data
- 2.2.B.5.i.** Table of drainage structures
- 2.2.B.5.j.** Structure number
- 2.2.B.5.k.** Note 'Existing' or 'Proposed'
- 2.2.B.5.l.** Structure type (bridge, culvert, etc)
- 2.2.B.5.m.** Dimensions
- 2.2.B.5.n.** Structure stationing
- 2.2.B.5.o.** Structure location (grid coordinates)
- 2.2.B.5.p.** Size and skew
- 2.2.B.5.q.** Notes on condition
- 2.2.B.5.r.** Plan and profile sheets (plan and profile views must be on the same plan sheet)
- 2.2.B.5.s.** coordinates at the start and end of each sheet
- 2.2.B.5.t.** horizontal alignment with curve and other data shown
- 2.2.B.5.u.** vertical profile with curve and other data shown
- 2.2.B.5.v.** location, types, sizes and flowline elevations of drainage structures
- 2.2.B.5.w.** location of all existing and proposed structures
- 2.2.B.5.x.** Cross sections with typical section applied
- 2.2.B.5.y.** Specifications

2.2.C. FINAL DESIGN REVIEW (90%) PLANS: Final Design Review (90%) plans shall be completed and submitted for review not more than 45 days after the completion of the AED review of the Design Review (50%) plans. The review of this submittal is to insure that the design is in accordance with directions provided the Contractor during the design process. The only effort remaining between the Final Design Review and the "Cleared For Construction" Design Review submittal is the incorporation of the Government Review Comments. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall be finalized at this time including the incorporation of any comments generated by the Design Review submittal. The drawings shall contain all the details necessary to assure a clear understanding of the work throughout construction. The Final Design Review (90%) plans shall include at a minimum but is not limited to:

- 2.2.C.1.** Changes incorporated from 50% design review comments.
- 2.2.C.2.** Design Analysis:
 - 2.2.C.2.a.** All backup material previously submitted.
 - 2.2.C.2.b.** Design Calculations and reports.
 - 2.2.C.2.c.** Shall contain explanatory materials giving the design rationale for any design decisions which would not be obvious to an engineer reviewing the Final Drawings.
- 2.2.C.3.** Design Plans.
- 2.2.C.4.** Structures design analysis/calculations.
- 2.2.C.5.** Detailed drawings for all structures, including culverts, retaining walls, causeway, bridges, etc.
- 2.2.C.6.** Final Revised Construction Cost Estimate & Cost Loaded Schedule.
- 2.2.C.7.** Government's Design Review Comments with the Contractor's annotation to each comment.
- 2.2.C.8.** Pavement Design (Required if contract contains asphalt pavement).

2.2.D. "CLEARED FOR CONSTRUCTION" DESIGN REVIEW SUBMITTAL (100%) PLANS:

After the Final Design Review submittal, the Contractor shall revise the Contract Documents by incorporating any comments generated during the review and submit not more than 45 days after the completion of the AED review of the Final Design Review (90%) plans. At a minimum but not limited to, the Contractor shall submit the following documents for the design complete submittal:

2.2.D.1. All information related to the design of this project with corrections made related to issues identified during the 90% review.

2.2.D.2. Design analysis.

2.2.D.3. Construction drawings.

2.2.D.4. Government's Final Design Review (90%) Comments with the Contractor's annotation to each comment.

2.2.D.5. Pavement Design (Required if contract contains asphalt pavement).

2.2.D.6. Once the design documents have been "Cleared for Construction" by the Contracting Officer, the Contractor shall clearly identify each document by annotating it as "Cleared for Construction."

2.3. DESIGN ANALYSIS & CALCULATIONS:

2.3.A. DESIGN ANALYSIS: The Contractor shall prepare and present design analyses with calculations necessary to substantiate and support all design documents submitted. For parts including drainage structures, site specific civil calculations shall be included. For parts including structural work, structural calculations shall be included. The Contractor shall submit the geotechnical evaluation report, reports of soil borings and any other investigations performed in support of the design.

2.3.B. DESIGN CALCULATIONS:

2.3.B.1. When design calculations are voluminous, they shall be bound separately from the narrative part of the design analysis. The design calculations shall be presented in a clean and legible form incorporating a title page and index for each volume. A table of contents, which shall be an index of the indices, shall be furnished when there is more than one volume. The source of loading conditions, supplementary sketches, graphs, formulae, and references shall be identified. Assumptions and conclusions shall be explained. Calculation sheets shall carry the names or initials of the computer and the checker and the dates of calculations and checking. No portion of the calculations shall be computed and checked by the same person.

2.3.B.2. AUTOMATIC DATA PROCESSING SYSTEMS (ADPS): When ADPS are used to perform design calculations, the design analysis shall include descriptions of the computer programs used and copies of the ADPS input data and output summaries. When the computer output is large, it may be divided into volumes at logical division points.

2.3.B.2.a. COMPUTER PRINTOUTS: Each set of computer printouts shall be preceded by an index and by a description of the computation performed. If several sets of computations are submitted, they shall be accompanied by a general table of contents in addition to the individual indices.

2.3.B.2.b. PREPARATION OF THE DESCRIPTION: Preparation of the description which must accompany each set of ADPS printouts shall include the following:

2.3.B.2.b.i Explain the design method, including assumptions, theories and formulae.

2.3.B.2.b.ii Include applicable diagrams, adequately identified.

2.3.B.2.b.iii State exactly the computation performed by the computer.

2.3.B.2.b.iv Provide all necessary explanations of the computer printout format, symbols, and abbreviations.

2.3.B.2.b.v Use adequate and consistent notation.

2.3.B.2.b.vi Provide sufficient information to permit manual checks of the results.

2.4. SPECIFICATIONS: Specifications shall be prepared in accordance with the Construction Specifications Institute (CSI) format. The Design-Build Contractor prepared specifications shall include as a minimum, all applicable specification sections referenced by the CSI. Where the CSI does not reference a specification section for specific work to be performed by this contract, the Design-Build Contractor shall be responsible for creating the required specification.

2.4.A. Preparation of Proprietary Non-Generic Design Documents: During the course of design, the designer shall specify specific proprietary materials, equipment, systems, and patented processes by trade name, make, or catalog number. The subsequent use of construction submittals to supplant and/or supplement incomplete design effort is unacceptable. Design submittals containing non-proprietary and/or generic design criteria where proprietary items are available, will be returned for resubmission.

2.4.B. Use of Unified Facilities Guide Specifications (UFGS): If UFGS are used, it is the sole responsibility of the Design-Build Contractor to prepare these specifications in strict conformance with the paragraph entitled PREPARATION OF PROPRIETARY NON-GENERIC DESIGN DOCUMENTS. UFGS containing non-proprietary and/or generic design criteria, where proprietary items are available, will be returned for resubmission. If the UFGS contains a "SUBMITTALS" paragraph, the Design-Build Contractor shall delete it and incorporate all required information directly into the design documents. Under no circumstances will the Design-Build Contractor be permitted to use submittals and shop drawings to finalize an incomplete design. UFGS (Uniform Federal Guide Specifications) are required for this project when U.S. products and systems are required or used. Current UFGS information may be obtained at the following location: http://www.wbdg.org/ccb/browse_org.php?o=70. Specifications for UFGS are in SpecsIntact format. SpecsIntact is government sponsored software used to edit specifications for government contracts. The software is available at the following link: <http://specsintact.ksc.nasa.gov/index.asp>.

2.4.C. Quality Control and Testing: Specifications shall include required quality control and further indicate all testing to be conducted by the Design-Build Contractor, its subcontractors, vendors and/or suppliers.

2.4.D. Ambiguities and indefinite specifications: Ambiguities, indefinite specification requirements (e.g., highest quality, workmanlike manner, as necessary, where appropriate, as directed etc) and language open to interpretation is unacceptable.

2.4.E. Industry Standards:

2.4.E.1. U.S. Industry Standards:

2.4.E.1.a. The Specifications shall be based on internationally accepted U.S. industry Standards. Customarily accepted publications may be found in the UNIFIED MASTER REFERENCE LIST (UMRL) which may be located at the following URL: <http://www.hnd.usace.army.mil/techinfo/UFGS/UFGSref.htm>.

2.4.E.1.b. To access the UMRL select the "Unified Facilities Guide Specifications" tab and scroll down to Unified Master Reference List (UMRL) (PDF version).

2.4.E.1.c. Examples of U.S. standards are: National Fire Protection Association (NFPA), International Building Code (IBC), American Concrete Institute (ACI), American Water Works Association (AWWA), ADAAG (ADA Accessibility Guidelines) for Buildings and Facilities, etc. Standards referenced shall be by specific issue; the revision letter, date or other specific identification shall be included.

2.4.E.1.d. This document lists publications referenced in the Unified Facilities Guide Specifications (UFGS) of the Corps of Engineers (USACE), the Naval Facilities Engineering Command (NAVFAC), the Air Force Civil Engineer Support Agency (AFCESA), and the

guide specifications of the National Aeronautics and Space Administration (NASA). This document is maintained by the National Institute of Building Sciences (NIBS) based on information provided by the agencies involved and the standards producing organizations. The listing is current with information available to NIBS on the date of this publication.

2.4.E.1.e. Standards referenced in specifications and drawings prepared by the Design-Build Contractor shall be by specific issue; the revision letter, date or other specific identification shall be included.

2.4.E.2. Non U.S. Industry Standards:

2.4.E.2.a. If non U.S. industry standards (e.g., codes, regulations, or technical references and norms) are authorized for use under this contract and are incorporated in the Design-Build Contractor's design, one (1) copy of each standard referenced shall be provided to the Government.

2.4.E.2.b. Where a U.S. design and/or construction standard cannot be referenced due to non-availability of products and/or systems, another specification format using the CSI guidelines may be utilized for that particular product and/or system. If a majority of the specifications within this project reference non-U.S. products due to availability and/or other factors, the entire set of specifications are not required to be in UFGS and Specs Intact format.

2.4.F. Incorporation of Government review comments: Subsequent to submission to the Government, the specifications shall be finalized by the incorporation of Government review comments.

2.5. DRAWINGS: Drawings, prepared in the English language with SI units of measure, are a part of each submittal. The working drawings shall be adequately labeled and cross-referenced for review. Complete, thoroughly checked and coordinated contract drawings shall be submitted. The contract drawings submitted for final review shall include the drawings previously submitted which have been revised and completed as necessary. The Contractor shall have incorporated any design review comments generated by previous design review(s), have completed all of his constructability and coordination checks, and have the drawings in a Ready-to-Build condition. The drawings shall be complete at this time and contain all the details necessary to ensure a clear understanding of the work throughout construction.

2.5.A. DRAWING SIZE: The project is required to be in SI units, all drawings submitted for review shall be prepared in size "A2" sheets. All final contract drawing sets shall be prepared with full size "A1" sheets (594mm by 841mm). Drawings shall be trimmed to size if necessary.

2.5.B. COMPUTER ASSISTED DESIGN AND DRAFTING (CADD): Computer Assisted Design and Drafting (CADD) are required for all work related to this contract.

2.5.B.1. DELIVERABLES: The Contractor shall furnish the digital as-built drawing files in .DWG file format utilizing Autodesk AutoCAD version 2004 or later. Drawings prepared in any convention other than CADD, must have approval of the Contracting Officer. The Contractor shall also provide all drawings in PDF format at every submittal stage. The drawing files shall include complete continuous drawings of the plan and profile views, in addition to plan sheets and other information. The CADD deliverables shall meet the requirements of the AEC CAD Standard Release 2.0. Emphasis is on drawings meeting sheet layout standards, level/layer naming standards and sheet naming conventions. CAD standards may be found at the following link: <https://tsc.wes.army.mil/products/standards/aec/aecstdweb.asp>. Transatlantic Programs Center Design Instructions Manual, Chapter 22 entitled COMPUTER ASSISTED DESIGN AND DRAFTING.

2.5.B.2. PLOTTER PREPARED ORIGINAL DRAWINGS: Plotter prepared original drawings shall be prepared on 20 pound bond paper, unless otherwise approved and shall be plotted on the matte side. Raster plotters must provide a minimum resolution of 400 dpi while vector plotters shall provide a minimum resolution of 0.0010 inch with an accuracy of +0.1% of the

move and a repeatability error of not more than 0.005 inch. Drawings produced from dot matrix plotters are not acceptable. Plots accompanied by the digital design file may be prepared on vellum: translucent bond is not acceptable. Line density shall be equivalent to that produced by black India ink: half-tones and gray scale plots are not acceptable unless otherwise approved. Manual changes to plotted originals are not acceptable.

2.5.B.3. HALF-SIZE REDUCTION: Preparation of all work shall accommodate half size reduction unless instructed otherwise by the Contracting Officer.

2.5.B.4. SYMBOLS AND ABBREVIATIONS: Symbols and abbreviations shall be in accordance with AEC CAD Standard Release 2.0 or later.

2.5.B.5. DESIGN DISCIPLINE DESIGNATION FORMAT: Referencing AEC CAD Standard Release 2.0. AEC CAD Standard, referenced herein, shall be adhered to, especially with regard to sheet naming, numbering and level/layer naming standards. Copies of level/layer naming standards are available at the following locations (in comma delimited format - .CSV) and may be imported into MicroStation and/or AutoCAD:

2.5.B.5.a. Public FTP site:

ftp://anonymous:anonymous@ftp.usace.army.mil/pub/aed/Standards/AEC_Nat_CAD_Std/level_libs/

2.5.B.5.b. SharePoint site:

https://aedsharepoint.tac.usace.army.mil/C16/Drawings/Document%20Library/AEC_CAD_level_templates.ZIP

2.5.B.6. TITLE AND REVISION BLOCK: Title and revision block shall match FIGURES 1 through 5 furnished in the paragraph entitled Attachment B.

2.5.B.7. DRAWING SCALES: The scales indicated on the following list shall, in general, be used for all drawings. The Contractor may, at its option, make exceptions to scales indicated, if approved in writing by the Contracting Officer.

2.5.B.7.a. Key Plans as large as practical.

2.5.B.7.b. Site, Grading and Utility Plans - 1:100, in SI units.

2.5.B.7.c. Key Plans as large as practical.

2.5.B.7.d. Cross Sections/elevations (as large scale as possible to adequately show required detail) - 1:10, in SI units.

2.5.B.7.e. Details - 1:10 minimum, in SI units.

2.5.C. BINDING: All volumes of drawing prints shall be firmly bound and shall have covers of heavier bond than the drawing sheets. If posts are used to fasten sheets together, the drilled holes on the bond edges of the sheets shall be on 8-1/2-inch centers.

2.5.D. INDEX SHEET(S): The first sheet shall be a cover sheet. In general, the second sheet shall be the first index; multiple index sheets may be required, depending on the project size. Each index sheet shall be signed and stamped by a principal of the Contractor.

2.5.E. DRAWING FILE NUMBER: The File Number is unique to each drawing and is a combination of a project location code, project number, facility designator and the CADD file name. Unassigned numbers or skipped sheets shall be labeled as "Not Used" on the index sheets. Cover sheets are not numbered.

2.5.F. LEGENDS: For each submittal, legends of symbols and lists of abbreviations shall be placed within the Table of Contents section. They shall include all of the symbols and abbreviations used in the drawing set, but shall exclude any symbols and abbreviations not used.

2.5.G. REVISIONS: Drawing revisions shall be prepared only on the original CADD files. A revision area is required on all sheets.

PART 3 - EXECUTION:

3.1. GENERAL:

3.1.A. DESIGN CONCEPT COORDINATION MEETING: The Contractor shall conduct formal status briefings on a bi-weekly basis, as a minimum, to provide a management overview of project completion. Shortly after contract award the Government may choose to conduct meetings with the Contractor to refine proposal concept features. The purpose of the meeting is to assure attention to project requirements and to suggest ways of improving the design prior to tentative level submissions.

3.1.B. GOVERNMENT DESIGN CHANGES: Government project changes which do not increase contractor costs shall be made at no charge to the Government.

3.2. SUBMITTAL REGISTERS: No formal submittal registers are required as part of this contract. The contractor is responsible for maintaining a record of all correspondence with the Government, including comments to design submittals.

3.3. TRANSMITTAL FORM (ENG Form 4025): The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both design and construction submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.4. SCHEDULING:

3.4.A. DESIGN SUBMITTALS: Adequate time (a minimum of fourteen (14) calendar days exclusive of mailing time) shall be allowed for review and acceptance of submittals. If the Contractor fails to submit in a timely fashion, or repetitive submittals that are not in strict conformance with the contract documents, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.5. SUBMITTAL PROCEDURE: This requirement is in addition to all other submission requirements stated elsewhere in the contract.

3.5.A. Refer to Submittal Distribution and Quantities in Attachment A for minimum submission requirements.

3.5.B. This is a government project and in accordance with Contract Clause 52.227-7022 GOVERNMENT RIGHTS (UNLIMITED), the Government has non-exclusive rights to use the information on other projects. In accordance with section 01060 SPECIAL CLAUSES clause PREPARATION OF AS-BUILT DRAWINGS (CONTRACTOR), one (1) set of the Government approved As-Builts shall be submitted in an editable CADD format.

3.5.C. DIGITAL TRANSMISSION OF DESIGN SUBMITTALS: The Contractor shall not be permitted to submit design deliverables in digital format in lieu of hard copies without the expressed written approval from the government.

3.6. REVIEW OF CONTRACTOR PREPARED DOCUMENTS:

3.6.A. GENERAL: The work under contract will be subject to continuous review by representatives of the Contracting Officer. Additionally, joint design review conferences with representation by all organizations having a direct interest in the items under review may be held. The Contractor shall furnish copies of all drawings and related documents to be reviewed at the review conference on or before the date indicated by the Government. Additional conferences pertaining to specific problems may be requested by the Contractor or may be directed by the Contracting Officer as necessary to progress the work. The Contractor shall prepare minutes of all conferences and shall furnish two copies to the Contracting Officer within seven (7) days after the conference. All submittal reviews shall be reviewed and comments entered into DrChecks located on the website at: <https://www.projnet.org/projnet/binKornHome/index.cfm>

3.6.B. INDEPENDENT REVIEW: The Contractor shall have someone other than the Designer or Design Team perform an independent review of all drawings and other required data prior to submission to the Government. Upon completion of this review, the Contractor shall certify that each design submittal is complete, accurate, is in strict conformance with all contract requirements, that repetition has been avoided, that all conflicts have been resolved, and that the documents have thoroughly coordinated and cross checked to prevent the omission of vital information.

3.6.C. CONTRACTOR'S QUALITY CONTROL ORGANIZATION REVIEW: This review shall be for the purposes of eliminating errors, interferences, and inconsistencies, and any additional information required. Submittals submitted to the Contracting officer without evidence of the Contractor's certified approval will be returned for resubmission. No part of the time lost due to such resubmissions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.6.D. GOVERNMENT REVIEW: Within ten (10) days after Notice to Proceed, the Contractor shall submit, for acceptance, a complete project schedule with all submittals and review times indicated in calendar dates. The Contractor shall update this schedule monthly. After receipt, the Government will be allowed fourteen (14) days to review and comment on each submittal, except as noted below. For each design review submittal, comments from the various design sections and from other concerned agencies involved in the review process will be made in the on-line review management system DrChecks_{SM} (<https://www.projnet.org/projnet/binKornHome/index.cfm>). Contractor shall coordinate with the Contracting Officer and/or Representative(s) to register for DrChecks_{SM} use. The review will be for conformance with the technical requirements of the solicitation and the Successful Offeror's (Contractor's) RFP proposal.

3.6.D.1. If a submittal is deficient, it will be returned for correction and resubmission. The review time will begin when the corrected submittal is received.

3.6.D.2. The contractor shall not begin construction work until the Government has reviewed the contractor's design and has cleared it for construction. Clearance for construction does not mean Government approval. Government review shall not be construed as a complete check but will evaluate the general design approach and adherence to contract parameters. The Government Review is often limited in time and scope. Therefore, the Contractor shall not consider any review performed by the Government as an excuse for incomplete work. Upon completion of the review, all comments will be posted on the online DrChecks_{SM} review system for the Contractor. The Contracting Officer will indicate whether the design submittal has or has not been cleared for construction using the following action codes:

- | | | |
|-------------------|----|--|
| 3.6.D.2.a. | A | Approved as submitted. |
| 3.6.D.2.b. | B | Approved, except as noted on drawings. |
| 3.6.D.2.c. | C | Approved, except as noted on drawings. Refer to attached sheet, resubmission required. |
| 3.6.D.2.d. | D | Will be returned with separate correspondence. |
| 3.6.D.2.e. | E | Disapproved (See attached). |
| 3.6.D.2.f. | F | Receipt acknowledged. |
| 3.6.D.2.g. | FX | Receipt acknowledged, does not comply as noted with contract requirements. |
| 3.6.D.2.h. | G | Other (Specify). |

3.6.D.3. These codes shall NOT be used by the Contractor. Contractor's Quality Control Organization will annotate Block "g" entitled "FOR CONTRACTOR USE CODE" of Eng Form 4025-R using the action codes listed on the reverse side of the form.

3.6.D.4. Design submittals Cleared for Construction by the Contracting Officer shall not relieve the Contractor from responsibility for any design errors or omissions and any liability associated with such errors, nor from responsibility for complying with the requirements of this contract.

3.6.E. INCORPORATION OF GOVERNMENT REVIEW COMMENTS: If the Contractor disagrees technically with any comment or comments and does not intend to comply with the comment, he must clearly outline, with ample justification, the reasons for noncompliance within five (5) days after close of review period in order that the comment can be resolved. The Contractor shall furnish disposition of all comments in DrChecks_{SM}, and with the next scheduled submittal. The disposition shall identify action taken with citation of location within the relevant design document. Generalized statements of intention such as "will comply" or "will revise the specification" are not acceptable. The Contractor is cautioned that if he believes the action required by any comment exceeds the requirements of this contract, that he should flag the comment in DrChecks_{SM} as a scope change, and notify the COR in writing immediately. Submittals date revisions must be made in writing at least five (5) days prior to the submittal. During the design review process, comments will be made on the design submittals that will change the drawings and specifications. The Government will make no additional payments to the Contractor for the incorporation of comments. Review comments are considered part of the process.

3.6.F. CONFERENCES: As necessary, conferences will be conducted between the contractor and the Government to resolve review comments.

3.6.G. DESIGN DISCREPANCIES: The Contractor shall be responsible for the correction of incomplete design data, omissions, and design discrepancies which become apparent during construction. The Contractor shall provide the Contracting Officer with a proposed recommendation for correcting a design error, within three (3) calendar days after notification by the Contracting Officer. The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. Should extensions of design, fabrication plans and/or specific manufacturer's details be required as a result of a Government issued Change Order, the Government will make an equitable adjustment in accordance with Contract Clause 52.243-4 entitled CHANGES.

3.7. DESIGN SUBMITTALS:

3.7.A. PARTIAL DESIGN SUBMITTALS: In the interest of expediting construction, the Contracting Officer may approve partial design submittals, procurement of materials and equipment, as well as issue the Notice To Proceed (NTP) for construction of those elements of the design which have been cleared for construction. Such partial notices to proceed shall be solely at the discretion of the Contracting Officer.

3.7.B. DESIGN SUBMITTALS NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS: The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in its design analysis, specifications, and drawings, and promptly furnish a corrected submittal in the form and number of copies as specified for the initial submittal. No part of the time lost due to such resubmissions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice shall be given promptly to the Contracting Officer.

3.7.C. IN-PLACE CONSTRUCTION PAYMENT: No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

3.7.D. COMMENCEMENT OF CONSTRUCTION: Construction of work may begin after receipt of the clearance for construction (Notice to Proceed) for each design phase. Any work performed by the Contractor prior to receipt of the clearance for construction, shall be at the Contractor's own risk and expense. Work cleared for construction that does not conform to the design parameters and/or requirements of this contract shall be corrected by the Contractor at no additional cost or time to the Government.

3.8. GENERAL DESIGN INSTRUCTIONS:**3.8.A. RESPONSIBILITY OF THE CONTRACTOR:**

3.8.A.1. PROFESSIONAL QUALITY, TECHNICAL ACCURACY, AND COORDINATION: The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all drawings and other services furnished under this contract. The Contractor shall thoroughly cross-check and coordinate all work, until he is professionally satisfied that no conflicts exist, vital information has not been omitted, and that indefinite language open to interpretation has been resolved.

3.8.A.2. DEVIATING FROM THE “CLEARED-FOR-CONSTRUCTION” DESIGN:

3.8.A.2.a. The Contractor must obtain the approval of the Designer of Record (DOR) and the Government's concurrence for any Contractor proposed revision to the professionally stamped and sealed design reviewed and Cleared for Construction by the Government, before proceeding with the revision.

3.8.A.2.b. The Government reserves the right to non-concur with any revision to the design.

3.8.A.2.c. Any revision to the design, which deviates from the contract requirements (i.e., the RFP and the accepted proposal), will require a modification, pursuant to the Changes clause, in addition to Government concurrence. The Government reserves the right to disapprove such a revision.

3.8.A.2.d. Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, which results in additional cost, shall strictly be at the Contractor's expense.

3.8.A.2.e. The Contractor shall track all approved revisions to the reviewed and cleared for construction design and shall incorporate them into the as-built design documentation, in accordance with section 01060 SC entitled PREPARATION OF AS-BUILT DRAWINGS (CONTRACTOR). The Designer of Record shall document its professional concurrence on the As-Built for any revisions by affixing its stamp and seal on the drawings and specifications.

3.8.A.3. GOVERNMENT OVERSIGHT: The extent and character of the work to be done by the Contractor shall be subject to the general oversight, supervision, direction, control, and review by the Contracting Officer.

3.8.A.4. UNLIMITED DRAWING RIGHTS: The Government shall have unlimited rights in all drawings, notes and all other works developed in the performance of this contract, including the right to use same on any other Government design or construction without additional compensation to the Contractor. The Contractor hereby grants to the Government a paid-up license throughout the world to all such works to which he may assert or establish any claim under design patent or copyright laws.

3.8.A.5. CONFLICTS: Any conflicts, ambiguities, questions or problems encountered by the Contractor in following the criteria shall be immediately submitted in writing to the Contracting Officer with the Contractor's recommendations. Prior to submission to the Government the Contractor shall take appropriate measures to obtain clarification of design criteria requirements, to acquire all pertinent design information, and to incorporate such information in the work being performed.

3.8.B. CONDUCT OF WORK: In the performance of the contract, the contractor shall:

3.8.B.1. PERFORMANCE: Perform the work diligently and aggressively, and promptly advise the Contracting Officer of all significant developments.

3.8.B.2. TELEPHONE CONVERSATIONS: Prepare a summary, and promptly furnish a copy thereof to the Contracting Officer, of all telephone conversations relating to the work under this contract.

3.8.B.3. COOPERATION WITH OTHERS: Cooperate fully with other firms, consultants and contractors performing work under the program to which this contract pertains, upon being advised by the Contracting Officer that such firms or individuals have a legitimate interest in the program, have need-to-know status, and proper security clearance where required.

3.8.B.4. TECHNICAL CRITERIA: All drawings shall be prepared in accordance with the contract documents and with the applicable publications referenced therein. As soon as possible, the Contractor shall obtain copies of all publications applicable to this contract. Availability of publications (where to purchase) is contained in Specification Section 01015. Any deviations from the technical criteria contained in the contract documents or in the applicable publications, including the use of criteria obtained from the user or other sources, must receive prior approval of the Contracting Officer. Where the technical criteria contained or referred to herein are not met, the Contractor will be required to conform his design to the same at his own time and expense.

3.8.C. TOPOGRAPHIC SURVEYS, EASEMENTS, AND UTILITIES: Unless otherwise stated in the contract, the Contractor will be responsible for detailed topographic mapping, available easements, and utility information for the project.

3.8.D. DESIGN PRIORITIES: The design of this project shall consider the remote location and harsh environment of this project and the impact this will have on sources of technical supply, the cost of construction, and the low level of maintenance.

3.8.E. GEOTECHNICAL INVESTIGATION: Unless otherwise stated in the contract, the Contractor will be responsible for Geotechnical investigation, including subsurface explorations, sampling, field and laboratory testing, and water studies where applicable.

3.8.F. SUBMITTAL OF CONTRACTOR FURNISHED DESIGN DOCUMENTS AND DRAWINGS: The requirements of this paragraph pertain to the submittal of design documents, design calculations, surveys, testing reports and other documents prepared by the Contractor to meet the design requirements of this project. The following information must be submitted:

3.8.F.1. Geo-technical investigation reports.

3.8.F.2. Design Analysis.

3.8.F.3. Design Drawings:

3.8.F.3.a. Full Size and True Half-Size Design drawings shall be submitted for the following:

3.8.F.3.a.i Refer to Submittal Distribution and Quantities Table.

3.8.F.4. Samples.

3.8.F.5. Schedules.

3.8.F.6. Reports.

3.8.F.7. Records.

3.8.F.8. Engineering Studies.

3.8.F.9. Accident Prevention and Safety.

3.9. GOVERNMENT APPROVED CONSTRUCTION SUBMITTALS (Required During Construction):

3.9.A. GENERAL: Since this contract requires that the drawings and specifications specify specific proprietary materials, equipment, systems, and patented processes by trade name, make, or catalog number, it is anticipated that construction shop drawings will primarily be limited to testing, construction plans (e.g., Contractor Quality Control, Accident Prevention, Resident Management System, Area Use etc), schedules (Project Schedule/Network Analysis), certificates of compliance, reports, records/statements and variations.

3.9.B. ADDITIONAL SHOP DRAWINGS AND SUBMITTALS: In accordance with the paragraph entitled DESIGN DISCREPANCIES, the Government may request the Contractor to provide additional drawings and submittal type data subsequent to completion of the design.

3.9.C. INCOMPLETE DESIGN: The Contractor shall not use construction submittals as a means to supplant and/or supplement an incomplete design effort.

3.9.D. GOVERNMENT APPROVAL OF CONSTRUCTION SUBMITTALS:

3.9.D.1. The approval of construction submittals by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of design construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as it is the sole responsibility of the Contractor to certify that each submittal has been reviewed in detail and is in strict conformance with all the contract documents and design criteria referenced therein.

3.9.D.2. Virtually all design related construction submittals can and must be incorporated directly into the design specifications and drawings prepared by the Contractor. Since the Contractor has sole responsibility for the design, procurement, and construction, impediments do not exist which would impair his ability to specifically identify what is being furnished to the Government prior to the start of construction. Generic/non-proprietary specifications are indicative of an incomplete design effort and as such must be rejected as unacceptable

3.9.E. SUBMITTALS: Submittals shall be limited to items such as Plans (e.g., Quality Control Plan, Accident Prevention Plan, etc.), Certificates of Compliance, and Field Test Reports.

3.9.F. GOVERNMENT REVIEW: Upon completion of review of construction submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Two (2) copies of the submittal will be retained by the Contracting Officer and one (1) copy of the submittal will be returned to the Contractor.

3.10. FOR INFORMATION ONLY SUBMITTALS: These submittals shall be checked, stamped, signed and dated by the Contractor's Quality Control Engineer, certifying that such submittal complies with the contract requirements. All Contractor submittals shall be subject to review by the Government at any time during the course of the contract. Any Contractor submittal found to contain errors or omissions shall be resubmitted as one requiring "approval". No adjustment for time or money will be allowed for corrections required as a result of noncompliance with plans or specifications. Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. These submittals will be used for information purposes. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications and will not prevent the Contracting Officer from requiring removal and replacement if nonconforming material is incorporated in the work.

3.11. ATTACHMENTS: The following attachments form an integral part of this specification:

3.11.A. SUBMITTAL DISTRIBUTION AND QUANTITIES TABLE (ATTACHMENT A).

3.11.B. CADD REQUIREMENTS (ATTACHMENT B):

3.11.B.1. Figure 1 - sheet/number description; AED title block.

3.11.B.2. Figure 2 - A-E logo/designed by/submitted by; AED title block.

3.11.B.3. Figure 3 - revision block; AED title block.

3.11.B.4. Figure 4 – Not Used.

3.11.B.5. Figure 5 - Finished Format Size.

3.11.C. TRACKING COMMENTS IN DRCHECKS (ATTACHMENT C).

3.11.D. ENG FORMS (ATTACHMENT D)

3.11.D.1. 4025 - TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATE OF COMPLIANCE.

3.11.D.2. 4288 – SUBMITTAL REGISTER

3.12. SUBMITTAL OF CONTRACTOR FURNISHED DESIGN DRAWINGS:

3.12.A. SURVEY DOCUMENTS: The surveyor shall provide a tabulated list (bound booklet) with adjusted coordinates and elevations of all permanent survey monuments established on the project. The surveyor shall complete and submit with field books, the field adjustments computation sheets. The surveyor shall submit raw GPS survey files in the RINEX format. The surveyor shall complete and submit the final survey and mapping.

3.12.B. COMPREHENSIVE SITE SURVEY ASSESSMENT: The Contractor shall provide the assessment as described in Section 01015.

3.12.C. SAFETY PLANS: The contractor shall submit safety plans as described in EM 385-1-1.

-- End Section --

SECTION 01415**SECTION 01415****METRIC MEASUREMENTS****PART 4 - GENERAL:**

4.1. REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM E 621	(1994; R 1999e1) Use of Metric (SI) Units in Building Design and Construction (Committee E-6 Supplement to E380)
ASTM SI 10	(2002) American National Standard for Use of the International System of Units (SI): The Modern Metric System

4.2. GENERAL: This project includes metric units of measurements. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960. A number of circumstances require that both metric SI units and English inch-pound (I-P) units be included in a section of the specifications. When both metric and I-P measurements are included, the section may contain measurements for products that are manufactured to I-P dimensions and then expressed in mathematically converted metric value (soft metric) or, it may contain measurements for products that are manufactured to an industry recognized rounded metric (hard metric) dimensions but are allowed to be substituted by I-P products to comply with the law. Dual measurements are also included to indicate industry and/or Government standards, test values or other controlling factors, such as the code requirements where I-P values are needed for clarity or to trace back to the referenced standards, test values or codes.

4.3. USE OF MEASUREMENTS IN SPECIFICATIONS: Measurements in specifications shall be either in SI or I-P units as indicated, except for soft metric measurements or as otherwise authorized. When only SI or I-P measurements are specified for a product, the product shall be procured in the specified units (SI or I-P) unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one system of units for another and for the final assembly and performance of the specified work and/or products.

4.3.A. HARD METRIC: A hard metric measurement is indicated by an SI value with no expressed correlation to an I-P value. Hard metric measurements are often used for field data such as distance from one point to another or distance above the floor. Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

4.3.B. SOFT METRIC:

4.3.B.1. A soft metric measurement is indicated by an SI value which is a mathematical conversion of the I-P value shown in parentheses (e.g. 38.1 mm (1-1/2 inches)). Soft metric measurements are used for measurements pertaining to products, test values, and other situations where the I-P units are the standard for manufacture, verification, or other controlling factor. The I-P value shall govern while the metric measurement is provided for information.

4.3.B.2. A soft metric measurement is also indicated for products that are manufactured in industry designated metric dimensions but are required by law to allow substitute I-P products. These measurements are indicated by a manufacturing hard metric product dimension followed by the substitute I-P equivalent value in parentheses (e.g., 190 x 190 x 390 mm (7-5/8 x 7-5/8 x 15-5/8 inches)).

4.3.C. Neutral: A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

4.4. COORDINATION: Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

4.5. RELATIONSHIP TO SUBMITTALS: Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM SI 10 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

PART 5 - PRODUCTS: (NOT APPLICABLE)

PART 6 - EXECUTION: (NOT APPLICABLE)

-- End Section --

SECTION 01451**SPECIFICATION SECTION 01451
CONTRACTOR QUALITY CONTROL****PART 1 - GENERAL:**

1.1. REFERENCES: The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

1.1.A. U.S. ARMY CORPS OF ENGINEERS (USACE):

1.1.A.1. ER 1110-1-12 (1993) Quality Management

1.1.A.2. EM 385-1-1 Safety and Health Requirements Manual

1.2. PAYMENT: Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 - PRODUCTS: (Not Applicable)**PART 3 - EXECUTION:**

3.1. GENERAL REQUIREMENTS: The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clauses and this specification section. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for all construction and construction related activities at the site.

3.2. CQM TRAINING REQUIREMENT: Before project design and construction begin, the Contractor's Quality Control Manager is required to have completed the U.S. Army Corps of Engineers CQM course, or approved equivalent. The Construction Trades Training Center (CTTC) in Jalalabad, Afghanistan provides a course that satisfies the requirement. Courses are offered at regular intervals. For enrollment and course information contact CTTC at the following:

3.2.A. Mhd. Haris
e-mail: mharis@afghanreconstruction.org
Telephone: 0700 08 0602

3.2.B. Pervaiz
e-mail: adpzmuj@yahoo.com
Telephone: 0700 61 3133

3.3. QUALITY CONTROL PLAN: The Contractor shall furnish for review by the Government, not later than five (5) days after receipt of Notice-to-Proceed (NTP) the proposed Contractor Quality Control (CQC) Plan. The plan shall identify personnel, procedures, control, instructions, records, and forms to be used.

3.3.A. Content of the CQC Plan: The CQC Plan shall include, as a minimum, the following to cover all construction operations, both on site and off-site, including work by subcontractors, fabricators, suppliers and purchasing agents:

3.3.A.1. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.

3.3.A.2. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

3.3.A.3. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

3.3.A.4. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, consultants, and purchasing agents. These procedures shall be in accordance with Specification 01335 SUBMITTAL PROCEDURES.

3.3.A.5. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test.

3.3.A.6. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

3.3.A.7. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

3.3.A.8. Reporting procedures, including proposed reporting formats.

3.3.A.9. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.3.B. Additional Requirements for Design Quality Control (DQC) Plan. The following additional requirements apply to the Design Quality Control (DQC) plan:

3.3.B.1. The Contractor shall provide and maintain a Design Quality Control (DQC) Plan as an effective quality control program which will assure that all services required by this design contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, all documents shall be technically reviewed by competent, independent reviewers identified in the DQC Plan. The same element that produced the product shall not perform the independent technical review (ITR). The Contractor shall correct errors and deficiencies in the design documents prior to submitting them to the Government.

3.3.B.2. The Contractor shall include the design schedule in the master project schedule, showing the sequence of events involved in carrying out the project design tasks within the specific contract period. This should be at a detailed level of scheduling sufficient to identify all major design tasks, including those that control the flow of work. The schedule shall include review and correction periods associated with each item. This should be a forward planning as well as a project monitoring tool. The schedule reflects calendar days and not dates for each activity. If the schedule is changed, the Contractor shall submit a revised schedule reflecting the change within 7 calendar days. The Contractor shall include in the DQC Plan the discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists shall be submitted at each design phase as part of the project documentation. Example checklists can be found in ER 1110-1-12.

3.3.B.3. The DQC Plan shall be implemented by a Design Quality Control Manager who has the responsibility of being cognizant of and assuring that all documents on the project have been coordinated. This individual shall be a person who has verifiable engineering or architectural design experience and is a registered professional engineer or architect. The Contractor shall notify the Contracting Officer, in writing, of the name of the individual, and the name of an alternate person assigned to the position.

3.3.C. Acceptance of Plan:

3.3.C.1. The Contracting Officer will notify the Contractor in writing of the acceptance of the DQC Plan. After acceptance, any changes proposed by the Contractor are subject to the acceptance of the Contracting Officer.

3.3.C.2. Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in the CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.3.D. Notification of Changes: Notification of Changes. After acceptance of the QC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.4. COORDINATION MEETING: After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 5 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures, which may require corrective action by the Contractor.

3.5. QUALITY CONTROL ORGANIZATION:

3.5.A. Personnel Requirements: The requirements for the CQC organization are a CQC System Manager, and sufficient number of additional qualified personnel to ensure safety and contract compliance. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of all letters, material submittals, shop drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

3.5.B. CQC System Manager: The Contractor shall identify an individual within his organization at the site of the work who shall be responsible for overall management of the CQC and have the authority to act in all CQC matters for the Contractor. The CQC system manager shall be a graduate engineer, graduate architect, or a graduate construction manager, with experience on construction projects similar in type to this contract OR a construction person with a minimum of ten (10) years in related work. The CQC System Manager shall be on the site at all times during construction and shall be employed by the Contractor. The CQC System Manager shall be assigned no other duties. An alternate for the CQC System Manager will be identified in the plan

to serve in the event of the CQC system manager's absence. The requirements for the alternate will be the same as for the designated CQC manager.

3.5.C. Not Used.

3.5.D. Additional Requirements: In addition to the above experience and/or education requirements, the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered by the government, and inquiries as to the next course offering may be directed to the local construction field office.

3.5.E. Organizational Changes: The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.6. SUBMITTALS AND DELIVERABLES: Submittals, if needed, shall be made as specified in the STR titled SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.7. CONTROL: Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of the construction work as follows:

3.7.A. Preparatory Phase: This phase shall be performed prior to beginning work on each definable feature of work, after all required documents and materials are approved/accepted, and after copies are at the work site. This phase shall include:

3.7.A.1. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards, in the English language unless specifically approved otherwise by the Contracting Officer, applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.

3.7.A.2. A review of the contract drawings.

3.7.A.3. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

3.7.A.4. A check to assure that provisions have been made to provide required control inspection and testing.

3.7.A.5. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

3.7.A.6. A physical examination of required materials, equipment, and sample work to verify that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

3.7.A.7. Reviews of the appropriate activity hazard analysis to ensure safety requirements are met.

3.7.A.8. Discussion of procedures for constructing the work including repetitive deficiencies, construction tolerances and workmanship standards for that feature of work.

3.7.A.9. A check to ensure that the Contracting Officer has accepted the portion of the plan for the work to be performed.

3.7.A.10. Discussion of the initial control phase.

3.7.A.11. The Government shall be notified at least 24 hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC system manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall instruct applicable

workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.7.B. Initial Phase: This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- 3.7.B.1.** A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.
- 3.7.B.2.** Verification of full contract compliance. Verify required control inspection and testing.
- 3.7.B.3.** Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with sample panels as appropriate.
- 3.7.B.4.** Resolve all differences.
- 3.7.B.5.** Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- 3.7.B.6.** The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC system manager and attached to the daily QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- 3.7.B.7.** The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

3.7.C. Follow-up Phase: Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted, and all noted deficiencies corrected, prior to the start of additional features of work that may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.7.D. Additional Preparatory and Initial Phases: Additional preparatory and initial phases may be required by the Contracting Officer on the same definable features of work if the quality of on-going work is unacceptable; if there are changes in the applicable QC staff or in the on-site production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.8. TESTS:

3.8.A. Testing Procedure: The Contractor shall perform tests specified or required to verify that control measures are adequate to provide a product that conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Costs incidental to the transportation of samples or materials shall be borne by the Contractor.

3.8.B. Testing includes operation and/or acceptance tests when specified. A list of tests to be performed shall be furnished as a part of the CQC plan. The list shall give the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required. The Contractor shall perform the following activities and record and provide the following data:

- 3.8.B.1.** Verify that testing procedures comply with contract requirements.
- 3.8.B.2.** Verify that facilities and testing equipment are available and comply with testing standards.
- 3.8.B.3.** Check test instrument calibration data against certified standards.
- 3.8.B.4.** Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- 3.8.B.5.** Results of all tests taken, both passing and failing tests, shall be recorded on the Quality Control report for the date taken. Specification paragraph/item reference, location where tests were taken, and the sequential control number identifying the test will be given.

Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.9. COMPLETION INSPECTION:

3.9.A. Punch-Out Inspection: Near the end of the work, or any increment of the work established by a time stated in the SPECIAL CONTRACT REQUIREMENTS Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.9.B. Pre-Final Inspection: The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.9.C. Final Acceptance Inspection: The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3.10. DOCUMENTATION: The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed.

3.10.A. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

3.10.A.1. Contractor/subcontractor and their area of responsibility.

3.10.A.2. Operating plant/equipment with hours worked, idle, or down for repair.

3.10.A.3. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

3.10.A.4. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.

3.10.A.5. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

3.10.A.6. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.

3.10.A.7. Offsite surveillance activities, including actions taken.

3.10.A.8. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

3.10.A.9. Instructions given/received and conflicts in plans and/or specifications.

3.10.A.10. Contractor's verification statement.

3.10.B. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within forty-eight (48) hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.11. SAMPLE FORMS: In accordance with Specification 01312 QUALITY CONTROL SYSTEM, the contractor shall use the forms produced by and printed from QCS. Samples of any forms required to meet the requirements of this section which are not produced by that system shall be included in the contractors Quality Control Plan.

3.12. NOTIFICATION OF NONCOMPLIANCE: The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

-- End Section --

SECTION 01500A**SECTION 01500A****TEMPORARY CONSTRUCTION FACILITIES****PART 7 - GENERAL:**

7.1. SITE PLAN: The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

7.2. IDENTIFICATION OF EMPLOYEES: The Contractor shall be responsible for furnishing to each employee, and for requiring each employee engaged on the work to display, identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

7.3. AVAILABILITY AND USE OF UTILITY SERVICES:

7.3.A. SANITATION: The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer.

7.3.B. TELEPHONE: The Contractor shall make arrangements and pay all costs for telephone facilities desired.

7.4. PROJECT SIGN, AND PROJECT SAFETY SIGN:

7.4.A. PROJECT AND SAFETY SIGNS: The requirements for the signs, their content, and location shall be as shown on the drawings. The signs shall be erected within 15 days after receipt of the notice to proceed. The data required by the safety sign shall be corrected daily, with light colored metallic or non-metallic numerals. Upon completion of the project, the signs shall be removed from the site.

7.5. PROTECTION AND MAINTENANCE OF TRAFFIC: During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

7.5.A. HAUL ROADS: The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

7.5.B. BARRICADES: The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as

roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

7.6. CONTRACTOR'S TEMPORARY FACILITIES:

7.6.A. ADMINISTRATIVE FIELD OFFICES: The Contractor shall provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

7.6.B. STORAGE AREA: The Contractor shall construct a temporary 1.8 m high chain link fence around storage area. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Materials, or equipment shall not be placed or stored outside the fenced area unless such materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the military boundaries. Equipment or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work.

7.6.C. MAINTENANCE OF STORAGE AREA: Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

7.6.D. SECURITY PROVISIONS: Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of the temporary project field office.

7.7. TEMPORARY PROJECT SAFETY FENCING: As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 1.1 m high, supported and tightly secured to steel posts located on maximum 3 m centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

7.8. CLEANUP: Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above.

7.9. RESTORATION OF STORAGE AREA: Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

PART 8 - PRODUCTS: (NOT APPLICABLE)

PART 9 - EXECUTION: (NOT APPLICABLE)

-- End Section --

SECTION 01525**SECTION 01525****SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS****PART 1 GENERAL**

For contractor safety on projects associated with this program, compliance with EM 385-1-1 safety requirements will be the long-term goal reached by growing a safety culture. This compliance will, by necessity, be achieved through a phased-in process. In the Commander's letter at the preface of the EM 385-1-1, he acknowledges that in OCONUS locations, strict compliance with the manual may not be possible – and through the hazard analysis process, safety measures can be developed to attain the same degree of safety.

This specification consists of two parts:

- 1) Sections 1.1 through 3.12.1, which are the standard safety specifications for work in Europe District and;
- 2) Appendix A, Phasing approach for safety in emerging countries where there is little or no national safety standards.

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A10.32	Personal Fall Protection - Safety Requirements for Construction and Demolition Operations
ANSI Z359.1(1992; R 1999)	Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components
ANSI/ASSE A10.34(2001)	Protection of the Public on or Adjacent to Construction Sites
ASME B30.3(1996)	Construction Tower Cranes

ASME INTERNATIONAL (ASME)

ASME B30.22(2000)	Articulating Boom Cranes
ASME B30.5(2004)	Mobile and Locomotive Cranes

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10(2002)	Portable Fire Extinguishers
NFPA 241(2000)	Safeguarding Construction, Alteration, and Demolition Operations

NFPA 51B(2003) Fire Prevention During Welding, Cutting, and Other Hot Work

NFPA 70(2005) National Electrical Code

NFPA 70E(2004) Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1(2003) Safety Safety and Health Requirements

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 Occupational Safety and Health Standards (OSHA)

29 CFR 1910.146 Permit-required Confined Spaces

29 CFR 1915 Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment

29 CFR 1919 Gear Certification

29 CFR 1926 Safety and Health Regulations for Construction

29 CFR 1926.500 Fall Protection

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SR SUBMITTAL PROCEDURES:

- SD-01 Preconstruction Submittals
 - Accident Prevention Plan (APP); G, ACC
 - Activity Hazard Analysis (AHA); G, ACC
 - Crane Critical Lift Plan; G, ACC
 - Proof of qualification for Crane Operators; G, ACC
- SD-06 Test Reports
 - Reports: Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."
 - Accident Reports
 - Monthly Exposure Reports
 - Crane Reports
 - Regulatory Citations and Violations

- SD-07 Certificates
 - Confined Space Entry Permit
 - Contractor Safety Self-Evaluation Checklist; G, ACC
 - Submit one copy of each permit/certificate attached to each Daily Quality Control Report.

1.3 DEFINITIONS

Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

- 1) **High Visibility Accident.** Any mishap which may generate publicity and/or high visibility.
- 2) **Medical Treatment.** Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- 3) **Qualified Person for Fall Protection.** A person with a recognized degree or professional certificate, extensive knowledge, training and experience in the field of fall protection who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.
- 4) **Recordable Injuries or Illnesses.** Any work-related injury or illness that results in:
- 5) **Death,** regardless of the time between the injury and death, or the length of the illness;
 - a. Days away from work (any time lost after day of injury/illness onset);
 - b. Restricted work;
 - c. Transfer to another job;
 - d. Medical treatment beyond first aid;
 - e. Loss of consciousness; or
 - f. A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.
- 6) "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

1.4 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.5 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and in particular, the requirements of the European Union Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The Contractor Quality Control (QC) person can only be the SSHO on this project if approved by the Contracting Officer. Any project exceeding \$1 Million US dollars in value shall have a full time SSHO. The SSHO shall meet the following requirements: A minimum of five (5) years safety work on similar projects; 30-hour OSHA construction safety class or European Union equivalent within the last five (5) years; an average of at least 24 hours of formal safety training each year for the past five (5) years. Competent person training as needed.

1.6.1.2 Competent Person for Confined Space Entry

Provide a competent person meeting the requirements of EM 385-1-1 who is assigned in writing by the Government Designated Authority (GDA) to assess confined spaces and who possesses demonstrated knowledge, skill and ability to:

- 1) Identify the structure, location, and designation of confined and permit-required confined spaces where work is done;
- 2) Calibrate and use testing equipment including but not limited to, oxygen indicators, combustible gas indicators, carbon monoxide indicators, and carbon dioxide indicators, and to interpret accurately the test results of that equipment;
- 3) Perform all required tests and inspections specified in Section 06.I of EM 385-1-1;
- 4) Assess hazardous conditions including atmospheric hazards in confined space and adjacent spaces and specify the necessary protection and precautions to be taken;
- 5) Determine ventilation requirements for confined space entries and operations;
- 6) Assess hazards associated with hot work in confined and adjacent space and determine fire watch requirements; and,
- 7) Maintain records required.

1.6.1.3 Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16 and Appendix G. In addition, crane operators shall be designated as qualified by a source that qualifies crane operators (i.e., union, a government agency, or an organization that tests and qualifies crane operators). Proof of current qualification shall be provided.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

- 1) Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors' daily quality control report.
- 2) Conduct mishap investigations and complete required reports. Maintain an accident/injury log such as the OSHA Form 300 or host nation equivalent, and Daily Production reports for prime and sub-contractors.
- 3) Maintain applicable safety reference material on the job site.
- 4) Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- 5) Implement and enforce accepted APPS and AHAs.
- 6) Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.
- 7) Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

- 1) Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).
- 2) The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.
- 3) Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.
- 4) The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design Build Contracts.

1.6.3.2 Safety Meetings

Shall be conducted and documented as required by EM 385-1-1. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written site-specific APP in both English and in the host nation language. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan". Specific requirements for some of the APP elements are described below. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any hazard become evident, stop work in the area, secure the area, and develop a plan to remove the hazard. Notify the Contracting Officer within 24 hours of discovery. In the interim, all necessary action shall be taken to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer's office and at the job site.

The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

- 1) Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be. The duties of each position shall be specified.
- 2) Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.
- 3) Confined Space Entry Plan. Develop a confined space entry plan in accordance with USACE EM 385-1-1, Section 06.I, and any other federal, state and local regulatory requirements identified in this contract. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)
- 4) Crane Critical Lift Plan. Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.C.18. and the following:
 - a. For lifts of personnel, the plan shall demonstrate compliance with the requirements of EM 385-1-1, Section 22.F.
 - b. For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.
- 5) Fall Protection and Prevention (FP&P) Plan. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 1.8 m (6 feet). A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Fall Protection and Prevention Plan shall be revised every six months for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1, and shall be written in both English and the host nation language. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

The activity hazard analyses shall be developed using the project schedule as the basis for the activities performed. Any activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the Contracting Officer.

1.10 DISPLAY OF SAFETY INFORMATION

Within 1 calendar day after commencement of work, erect a safety bulletin board at the job site. The safety bulletin board shall include information and be maintained as required by EM 385-1-1, section 01.A.06.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project. Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. The Government has no responsibility to provide emergency medical treatment. Military medical clinics may provide emergency treatment for serious injuries; the contractor is responsible for coordination with the local military medical clinic prior to mobilization.

1.13 REPORTS

1.13.1 Accident Reports

For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within five (5) calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.13.4 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.14 HOT WORK

Prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, a written permit shall be requested from the Installation. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The Contractor will provide at least two (2) six kilogram ABC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in fire fighting techniques and remain on-site for a minimum of 120 minutes after completion of the task or as specified on the hot work permit.

When starting work in the facility, Contractors shall require their personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency phone numbers. ANY FIRE, NO MATTER HOW SMALL, SHALL BE REPORTED TO THE RESPONSIBLE FIRE DIVISION/DEPARTMENT IMMEDIATELY.

PART 2 PRODUCTS

Not used for this project.

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

Before initiation of work at the job site, an accident prevention plan, written by the Contractor for the specific work and hazards of the contract and implementing in detail the pertinent requirements of EM 385-1-1, will be reviewed and found acceptable by designated Government personnel. Specific requirements for development of the accident prevention plan are found in sections 01.A and Appendix A of EM 385-1-1.

Before beginning each activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform the work, activity hazard analysis (AHA) shall be prepared by the Contractor performing the work activity. See paragraph 01.A.09 of EM 385-1-1.

The Contractor shall require subcontractors to submit their plan of operations showing methods they propose to use in accomplishing major phases of work.

The Contractor shall be prepared to discuss the plans in conferences convened by the Contracting Officer prior to starting work on each major phase of operation. Plans shall include all pertinent information such as layout of haul roads, access roads, storage areas, electrical distribution lines, methods of providing minimum exposure to overhead loads, and methods of access to work areas. The plan for accomplishing the initial work phase shall be submitted within 15 calendar days after award of the contract. Plans for subsequent major phases of work shall be submitted not later than 15 calendar days prior to initiation of work on each major phase.

All areas where construction, demolition, alteration, building, or similarly related activities take place, all workers shall have the following minimum personal protective clothing and equipment:

- 1) Short sleeve shirt.
- 2) Long trousers.
- 3) Steel-toed safety boots.
- 4) Hard hat.

3.1.1 Falling Object Protection

All areas must be barricaded to safeguard employees. When working overhead, barricade the area below to prevent entry by unauthorized employees. Construction warning tape and signs shall be posted so they are clearly visible from all possible access points. When employees are working overhead all tools and equipment shall be secured so that they will not fall. When using guardrail as falling object protection, all openings shall be small enough to prevent passage of potential falling objects.

3.1.2 Hazardous Material Use

Each hazardous material must receive approval prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of ten (10) working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose Government or Contractor employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent Government or Contractor employees from being exposed to any hazardous condition that could result from the work or storage. The Prime Contractor shall keep a complete inventory of hazardous materials brought onto the work-site. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

3.1.3 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

3.1.4 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within fourteen (14) calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

The Contractor shall establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. The program shall include company policy, identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures,

inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures.

3.2.1 Training

The Contractor shall institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, the Contractor shall provide training for each employee who might be exposed to fall hazards. A competent person for fall protection shall provide the training. Training requirements shall be in accordance with USACE EM 385-1-1, section 21.A.16.

3.2.2 Fall Protection Equipment and Systems

The Contractor shall enforce use of the fall protection equipment and systems designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is exposed to a fall hazard. Employees shall be protected from fall hazards as specified in EM 385-1-1, section 21. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with USACE EM 385-1-1, paragraphs 05.H. and 05.I. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, or travel. Fall protection must comply with USACE EM 385-1-1 and host nation requirements, whichever is more stringent.

3.2.2.1 Personal Fall Arrest Equipment

Personal fall arrest equipment, systems, subsystems, and components shall meet ANSI Z359.1 or European Union equivalent. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed 1.8 m (6 feet). The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

3.2.3 Fall Protection for Roofing Work

Fall protection controls shall be implemented based on the type of roof being constructed and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

1) Low Sloped Roofs:

- a. For work within 1.8 m (6 feet) of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized.
- b. For work greater than 1.8 m (6 feet) from an edge, warning lines shall be erected and installed in accordance with USACE EM 385-1-1.

2) Steep-Sloped Roofs: Work on steep-sloped roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

3.2.4 Existing Anchorage

Existing anchorages, to be used for attachment of personal fall arrest equipment, shall be certified (or re-certified) by a qualified person for fall protection in accordance with ANSI Z359.1 or European Union equivalent. Existing horizontal lifeline anchorages shall be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

3.2.5 Horizontal Lifelines

Horizontal lifelines shall be designed, installed, certified and used under the supervision of a qualified person for fall protection as part of a complete fall arrest system which maintains a safety factor of 2.

3.2.6 Guardrails and Safety Nets

Guardrails and safety nets shall be designed, installed and used in accordance with EM 385-1-1 or Host Nation requirements, whichever is more stringent.

3.2.7 Rescue and Evacuation Procedures

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. A Rescue and Evacuation Plan shall be prepared by the contractor and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. The Rescue and Evacuation Plan shall be included in the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

3.3 SCAFFOLDING

Employees shall be provided with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Access to scaffold platforms greater than 6 m in height shall be accessed by use of a scaffold stair system. Vertical ladders commonly provided by scaffold system manufacturers shall not be used for accessing scaffold platforms greater than 6 m in height. The use of an adequate gate is required. Contractor shall ensure that employees are qualified to perform scaffold erection and dismantling. Do not use scaffold without the capability of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection and prevention plan. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward. Special care shall be given to ensure scaffold systems are not overloaded. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material is prohibited. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base. Work platforms shall be placed on mud sills. Scaffold or work platform erectors shall have fall protection during the erection and dismantling of scaffolding or work platforms that are more than six feet. Delineate fall protection requirements when working above six feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

3.4 EQUIPMENT

3.4.1 Material Handling Equipment

- 1) Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

- 2) The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.
- 3) Operators of forklifts or power industrial trucks shall be trained/licensed in accordance with Host Nation requirements.

3.4.2 Weight Handling Equipment

- 1) Cranes and derricks shall be equipped as specified in EM-385-1-1 section 16.
- 2) The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.
- 3) The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person. All testing shall be performed in accordance with the manufacturer's recommended procedures.
- 4) Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.
- 5) When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11.
- 6) Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves to the satisfaction of the Contracting Officer that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.
- 7) Portable fire extinguishers shall be inspected, maintained, and recharged.
- 8) All employees shall be kept clear of loads about to be lifted and of suspended loads.
- 9) The Contractor shall use cribbing when performing lifts on outriggers.
- 10) The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
- 11) A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.
- 12) Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.
- 13) Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.
- 14) Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
- 15) Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. Prior to conducting lifting operations the contractor shall set a maximum wind speed at which a crane can be safely operated based on the equipment being used, the load

being lifted, experience of operators and riggers, and hazards on the work site. This maximum wind speed determination shall be included as part of the activity hazard analysis plan for that operation.

3.5 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly.

3.5.1 Utility Locations

Prior to any excavation, all underground utilities in the work area must be positively identified by the contractor utilizing a) a private utility locating service in addition to any station locating service, and/or b) a metal and/or cable-detecting device along the route of the excavation. All underground utilities discovered will be flagged a distance of one-half (1/2) meter on each side of the location, and any markings made during the utility investigation must be maintained throughout the contract.

Damage occurring to existing utilities, when the above procedures are not followed, will be repaired at the Contractor's expense.

3.5.2 Utility Location Verification

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Digging within 0.61 m (2 feet) of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30.5 m (100 feet) if parallel within 1.5 m (5 feet) of the excavation.

3.5.3 Shoring Systems

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacturer tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

3.5.4 Trenching Machinery

Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Documentation of the training shall be kept on file at the project site.

3.6 UTILITIES WITHIN CONCRETE SLABS

Utilities located within concrete slabs or pier structures, bridges, and the like, are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever contract work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with station utility departments in addition to a private locating service. Outages to isolate utility systems shall be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the contractor from meeting this requirement.

3.7 ELECTRICAL

3.7.1 Conduct of Electrical Work

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. In addition, provide electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA.

3.7.2 Portable Extension Cords

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered and protected from damage. All damaged extension cords shall be immediately removed from service. Portable extension cords shall meet the requirements of NFPA 70 or European Union equivalent.

3.8 WORK IN CONFINED SPACES

The Contractor shall comply with the requirements in Section 06.I of USACE EM 385-1-1. Any potential for a hazard in the confined space requires a permit system to be used.

- 1) Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. (See Section 06.I.06 of USACE EM 385-1-1 for entry procedures). All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.
- 2) Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its' action level.
- 3) Ensure the use of rescue and retrieval devices in confined spaces greater than 1.5 m (5 feet) in depth. Conform to Sections 06.I.08, 06.I.09 and 06.I.10 of USACE EM 385-1-1.
- 4) Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.
- 5) Include training information for employees who will be involved as entrants and attendants for the work. Conform to Section 06.I.07 of USACE EM 385-1-1.
- 6) Daily Entry Permit. Post the permit in a conspicuous place close to the confined space entrance.

3.9 CRYSTALLINE SILICA

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica, shall comply with USACE EM 385-1-1, Appendix C. The Contractor shall develop and implement effective exposure control and elimination procedures to include dust control systems, engineering controls, and establishment of work area boundaries, as well as medical surveillance, training, air monitoring, and personal protective equipment.

3.10 DEMOLITION

3.10.1 Demolition Plan

The Contractor shall submit a written demolition plan for all demolition work to be carried on the site. In addition, the demolition plan shall be signed by a Professional Registered Engineer and meet the requirements of the Corps of Engineers Safety and Health Manual, EM 385-1-1, section 23. The demolition plan shall be submitted to the COR at least 1 week before the beginning of the work, including structural calculations for the demolition, if necessary. The demolition work shall not begin before the Contractor has received a written approval from the COR.

3.10.2 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or component of floors, roofs, walls, columns, pilasters, or other structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workers remove debris or perform other work in the immediate area.

3.10.3 Protection of Structures

Floors, roofs, walls, columns, pilasters, and other structural components that are designed and constructed to stand without lateral support or shoring, and are determined to be in stable condition, shall remain standing without additional bracing, shoring, or lateral support until demolished, unless directed otherwise by the COR. The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

Interior concrete or masonry walls shall be demolished from the top down unless a Registered Engineer can demonstrate that an alternate method poses no additional safety hazards

3.11 HOUSEKEEPING

3.11.1 Clean-Up

The Contractor shall be responsible for cleaning up. The Contractor shall require his personnel to keep the immediate work site clean of all dirt and debris resulting from work under this contract. Accumulated dirt and debris shall be hauled off and disposed of in accordance with local law and at least once a week by the Contractor. Additionally, all debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

Stairwells used by the Contractor during execution of work shall be cleaned daily. Cloths, mops, and brushes containing combustible materials shall be disposed of or stored outside of the buildings in tight covered metal containers. Paints and thinners shall not be poured into inlets of the interior or exterior sewage system. Paint, stains, and other residues on adjacent surfaces or fixtures caused by the Contractor shall be carefully removed and cleaned to original finish. Upon completion of the work, the

Contractor shall remove all construction equipment, materials and debris resulting from the work. The entire work site and the area used by Contractor personnel shall be left clean.

- End of Section -

STR 015250 - SAFETY AND OCCUPATIONAL HEALTH PHASING PLAN**1. PURPOSE AND RESPONSIBILITIES:**

- a. The purpose of this SOH Phasing Plan is to establish controls and procedures to reduce the safety and occupational health risks on associated projects to an acceptable level. This SOH Phasing Plan is not intended to address all program SOH requirements, but provides general emphasis to certain procedures and requirements addressed in: EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Requirements Manual
- b. For contractor safety on projects associated with this program, compliance with EM 385-1-1 safety requirements will be the long-term goal reached by growing a safety culture. This compliance will, by necessity, be achieved through a phased-in process. In the Commander's letter at the preface of the EM 385-1-1, he acknowledges that in OCONUS locations, strict compliance with the manual may not be possible – and through the hazard analysis process, safety measures can be developed to attain the same degree of safety.
 - i. The exact timeline and methods of compliance, based generally on the Phase plan below will be determined by in-theater Project Delivery Team (PDT) partners responsible for safety, to include USACE Field Engineering/Construction/ Safety personnel, Prime Contractors and Local Subcontractors. The Prime Contractor, in partnership with the USACE and subcontractors, will develop a Safety and occupational Health Plan (SOHP) consisting of a specific Accident Prevention Plan (APP) and Activity Hazard Analysis for each project.
 - ii. Each project SOHP will evolve as a living document, starting by dividing into phases to provide a goal with a timeline. Focus for the project safety program areas will be based on the following time-based phases.
 1. Phase I: "Saving Lives". Establish achievable compliance methods and basic worker safety education to eliminate or reduce to an acceptable level the life-threatening conditions associated with high hazard construction activities.
 - a. The initial high-hazard focus areas shall include:
 - i. Excavations
 - ii. Fall Hazards
 - iii. Electrical Work
 - iv. Mobile Construction Equipment
 - v. Machinery
 - vi. Confined Spaces
 - b. Develop a basic worker safety and health practices manual/ guide and associated mandatory training for each Focus area listed above. These will be in English and local language, based on local conditions and practices and targeted at high-hazard activities.
 - c. On all contract sites, the basic life-support will include First Aid Kits, and emergency communication.

- d. Contractor Accident Prevention Plans, Activity Hazard Analyses, and other safety-related systems under development with assistance by PDT
- 2. Phase II: "Building A Safety Culture" (Approximately one year, beginning at end of Phase I) Advanced safety education of local contractors and LN work force. Full contractor compliance with USACE safety standards related to high-hazard situations, increased application of standards on all work.
 - a. Workforce education and training to include all applicable requirements of EM 385-1-1 and International Safety Standards
 - b. All required Personal Protective Equipment (PPE) available and used by workers in applicable work practices, as outlined in the EM 385-1-1.
 - c. Contractor Accident Prevention Plans, Activity Hazard Analyses, and other safety-related systems refined to meet standard USACE expectations with assistance by PDT
 - d. Standard Contractor Safety administrative responsibilities required, i.e.: Accident reporting, man-hour tracking, training documentation, First Aid personnel certification, fire protection, etc.
- 3. Phase III, "Full Performance" (beginning at end of Phase II) Full performance in compliance with EM 385-1-1 and other applicable laws, regulations, design codes and standards.
 - a. Where standard compliance is not possible, local methods may be used in accordance with implementing letter of EM 385-1-1 or through formal waiver process.
- c. The PDT shall employ the "Plan, Do, Check, Act" process for implementing this SOHP as a living document. Each PDT member is responsible for planning for safety and health management within their area of responsibility, implementing agreed-on mitigation, checking to assure that the SOHP is being implemented and acting to adjust plans and implementation with a goal of continuous improvement. This plan will be reviewed and revised as needed at the initiation of each Phase listed above.
- d. The PDT members shall cooperate in developing a listing of potential hazards associated with each project.

2. GOALS AND OBJECTIVES:

- a. Goals. The safety and health goals of all projects are:
 - i. Be accident free
 - ii. Detect and address safety and health problems early in the life of each project
 - iii. Do not accept unnecessary risk
 - iv. Every team member, to include contractors shall contribute to the safety and health of their fellow team members and assure that the product is free of inherent hazards to the user.
 - v. Educate the workforce and promote Safety as a new way of doing business, show how the project and the employee benefit from Safety.

- b. Objectives. The safety and health objectives of this program are:
 - i. Managers, supervisors, and workers shall be held accountable, based on the current Phase, for safety and health.
 - ii. Safety and health expectations shall be communicated with the work force in their native language through the use of banners, flyers, and periodic safety meetings
 - iii. The work force shall have the safety and health training needed to perform the work at hand, based on the Phase.
 - iv. Injury and property damage shall be avoided through early detection and management of hazards
- c. Phase I Interim Safety and Occupational Health Work Practices for USACE Contractor Projects
- d. Phase I Safety Program
 - i. Contractors shall strive to maintain full compliance with the USACE Safety Requirements Manual, EM 385-1-1. This may not be easily achieved during this Phase, due to a number of factors. The focus for safety and health efforts during this Phase is Saving Lives – the prevention of deaths, permanently disabling injuries, and major property loss. The goal during this period is to provide the equipment and methods needed to save lives and to train the workforce in working safely and using the correct personal Protective Equipment (PPE).
 - ii. In order to assist in achieving this goal immediately, the following interim standards shall be used (as a minimum acceptable standard) when full compliance with the EM 385-1-1 is not possible. Contractor shall provide these standards in to their workforce in the local language and shall provide training as needed to ensure worker awareness.

BASIC SAFETY AND HEALTH STANDARDS FOR CONSTRUCTION

- 1) In order to assist in achieving this goal immediately, the following interim standards shall be used (as a minimum acceptable standard) when full compliance with the EM 385-1-1 is not possible. Contractors shall provide these standards in to their workforce in the local language and shall provide training as USACE and the contractors must form a team to assure safety on every job site and prevent serious accidents. All unsafe conditions must be reported and the hazard reduced before work may proceed.
- 2) Personal Protective Equipment (PPE) may not always be available to every worker during this Phase. Where the equipment required by the USACE Safety Manual, EM 385-1-1, cannot be provided in a timely manner, the contractor shall develop methods that will provide a similar degree of safety (as accepted by USACE) and not expose the workers to serious risk. The mandatory minimum standards for all PPE are:
 - a) Footwear: Closed-toe durable shoes or boots shall be worn by all workers on the project site. No sandals or sports shoes will be allowed, at no time will workers be allowed on the project site with bare feet. Safety footwear (steel-toe or other protection) should be worn by workers using steel rollers, tampers, jack hammers or carrying heavy objects (metal, concrete, stone)
 - b) Head Protection: When they are available, hard hats should be worn by all construction workers when they are at the project. Hard Hats must be worn in overhead hazard areas including material hoisting/ lifting operations, areas below scaffolds and other elevated work, in excavations, and low ceiling areas that have sharp or hazardous projections. If they are not available, then workers must be kept away from these and other overhead hazard areas.

- c) Respirators: Workers exposed to toxic chemicals, vapors, gases and dusts must wear proper respiratory protection. Such exposure is expected in asbestos removal/ repair work, working with paints and solvents in rooms or enclosed spaces, and fuel production facilities. The employer must train the workers in the uses of the respirator and how to properly wear it. The minimum acceptable respirator is a negative pressure filter or cartridge half-face respirator that is correctly equipped for the hazard. Contractors shall consult and follow the ACGIH guidance for length of allowable exposure to the contaminant and workers shall not exceed the recommended time for exposure. Dust Masks will be worn when the work is producing visible dust.
 - d) Eye Protection: Workers shall wear protective glasses, goggles, or visors when exposed to eye hazards. These hazards include concrete dust, stone and concrete chips from hammering, sandblasting, and power tool cutting or milling. Workers performing welding and cutting with torches or arc-welding equipment shall wear the proper shaded lenses in face shields and/ or goggles.
 - e) Hearing Protection: Protective ear plugs shall be worn when workers are exposed to potentially damaging noise including jack hammers, flight line operations, power saws and grinders, and combustion engines without mufflers.
 - f) Gloves: All workers shall have protective gloves appropriate to the task.
 - g) Clothing: Workers shall wear clothing that protects their skin from damage – shirts and long pants at a minimum. Workers exposed to welding operations, chemicals, abrasive blasting, wet concrete, asbestos, and other hazardous contaminants will wear appropriate clothing for the hazard. Workers using power tools or operating equipment shall not wear very loose or flowing clothing that may get caught in the equipment.
- 3) Work Methods for Highly Hazardous Work: The following types of work and hazards are recognized as the leading cause of serious injuries and deaths in construction work. Each type of work has specific PPE and safety equipment that is required to do the work and also specific procedures that must be followed every time the work is done. These interim measures are the minimum acceptable precautions. For each project, an Activity Hazard Analysis (AHA) shall be completed and, when possible, compliance with more restrictive methods of the EM 385-1-1 shall be achieved.

Workers shall be trained on the following safety precautions, the nature of the hazards involved, and any additional work methods used before performing each type of work

- a) Excavations
 - i) The Site Safety and Health Officer will be contacted for inspection of the work prior to digging. The SSHO will assist in any safety equipment or techniques that are required to avoid injury. They will also provide a safety check on the location to assure there are no underground hazards at the site.
 - ii) All excavations or unsafe areas will be marked with barricades or warning tape. These warnings must be maintained and visible until the area is restored to a safe condition.
 - iii) When workers will enter trenches, the walls shall be sloped according to the type of soil or shoring, trench boxes, or other structures will be used to protect workers from collapsing walls
 - iv) Soil removed from trenches will not be placed at the edge of the trench – it must be placed back at least 1 meter from the edge.
 - v) Vehicles and construction equipment must not be parked closer than 2 meters from the edge of an excavation.
 - vi) Excavation walls shall be inspected regularly during each day to check for cracks, bulges, large stones, sandy areas, and failure of the wall. If these conditions are found, nobody may enter the excavation and the damaged area must be dug out or braced.
- b) Fall Hazards
 - i) When working above 2 meters from the ground or another level, all workers shall be protected from falling. The SSHO will inspect prior to beginning work to be sure the work

- methods are safe. Inspection will include work on ladders, scaffolds, and other elevated work areas.
- ii) Protection systems shall be sturdy railings, walls, or other structures
 - iii) If there are no structures to protect workers, body belts or harnesses shall be used along with lanyards.
 - iv) Body belts should be mainly be used only to prevent a worker from falling over an edge or off a structure.
 - v) Body belts and harnesses can both be used as fall protection (stopping a falling worker). The lanyard shall be rope strong enough to withstand the shock of stopping the worker's weight, and they shall be as short as possible, to limit the shock force. Lanyards shall never allow a worker to fall more than 2 meters. It is recommended that lanyards without shock absorber devices be no longer than 1 meter.
- c) Electrical Work
- i) All circuits, wires, and electrical devices shall be tested with a volt meter and found to be de-energized before workers touch the energized parts
 - ii) Controls, switches, and other means for energizing the circuit or equipment shall be tagged "do not operate"
 - iii) Workers shall not work closer to energized systems than the distances listed in the USACE manual.
 - iv) Temporary electrical systems shall be grounded and tested for good ground resistance before use.
 - v) Power tools shall be protected from water and damage, and their cords must be insulated. Cords must be factory installed or equivalent replacements, including safety grip plug and cord boot.
 - vi) Extension cords will be in safe, good working order.
- d) Mobile Construction Equipment
- i) If equipment, particularly cranes, are damaged the repairs shall be done by a competent repair person and verified by the SSHO prior to being brought back into service.
 - ii) Nobody may ride outside the cab of construction equipment. Specifically, no riders may ever be in loader buckets, bulldozer blades, on forklift forks, or suspended by a crane.
 - iii) When workers are nearby, construction equipment must have reverse signal alarms or shall use a spotter standing away from the equipment. The spotter must be visible by the driver and positioned to see the area behind the equipment.
 - iv) Construction equipment must work a safe distance from electrical systems, based on the voltage.
 - v) Cranes must be used according to the manufacturer. If no manufacturer data is available, a load chart shall be developed by a qualified engineer.
 - vi) Workers should stay out of the radius of the crane boom during a lift.
 - vii) Lifting ropes shall be inspected daily for breaks and failure of hardware and fittings.
 - viii) Nobody shall ever ride the hook or load of a crane.
- e) Machinery
- i) Rotating shafts, wheels, blades, and other hazardous parts shall have guards to prevent workers from being injured.
 - ii) Fuel-powered machinery must not be operated indoors or near enclosed areas without using powered ventilation to prevent toxic CO build-up.
 - iii) Metal housings of electrically powered equipment must be grounded
- f) Confined Spaces
- i) The SSHO will pre-approve any work in a confined space, such as in a tank, sewer, manhole or any other enclosed area. The SSHO will inspect the work and assist with any safety equipment or techniques that are required.
 - ii) All permit-required confined spaces (PRCS) on a project shall have signs prohibiting entry.
 - iii) Entrants, supervisors, and attendants for PRCS shall be properly trained.

- iv) When available, oxygen/flammable/toxic gas meters shall be used for all PRCS. This equipment must be used to evaluate the air in all spaces known or suspected to have contained flammable or toxic chemicals or contain sewage, rotting vegetation or other organic matter.
 - v) For spaces not meeting the above criteria, mechanical ventilation fans shall be used to clear the air in the space when meters are not available. Based on the air flow of the fan, it shall exhaust the total volume of the space a minimum of seven times prior to entry.
 - vi) All entrants shall wear a harness, body belt, or other device attached to a rope sufficient to retrieve the worker in an emergency.
 - vii) Permits should be used during PRCS entry. If not possible, then some visible means, such as flags or tags outside the entrance, shall be used so supervisors can see when workers are in the space.
- g) Gas Cylinders
- i) Pressurized gas cylinders, such as Oxygen and Acetylene tanks will be stored in a holding stand/ cart to prevent them from falling over. Cylinders will not be placed free on the ground or standing free. If the bottle is not in use the valve will be removed.
- 4) Child Labor. Minors under the age of 18 may not perform any of the above hazardous work. Additionally, these minors can not perform any hazardous work such as operating dangerous power tools (circular saws, jack hammers, lathes, etc), driving vehicles, be exterior assistants for vehicle operators or operating mobile construction equipment, explosives work, work at heights over 2 meters without standard railings, electrical work, entering excavations, and work with toxic substances.

SECTION 01770**SPECIFICATION SECTION 01770****CLOSEOUT PROCEDURES****PART 1: GENERAL****1.1 SUBMITTALS**

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01335 SUBMITTAL PROCEDURES:

SD-10 Operation and Maintenance Data

Equipment/Product Warranty List; G

Submit Data Package 1 in accordance with Section 01781 OPERATION AND MAINTENANCE DATA.

SD-11 Closeout Submittals

As-Built Drawings; G

Record Of Materials; G

Equipment/Product Warranty Tag; G

1.2 PROJECT RECORD DOCUMENTS**1.2.1 As-Built Drawings**

As built drawings shall be submitted in accordance with Section 01015 SPECIAL CONDITIONS

1.2.2 As-Built Record of Materials

Furnish a record of materials.

Where several manufacturers' brands, types, or classes of the item listed have been used in the project, designate specific areas where each item was used. Designations shall be keyed to the areas and spaces depicted on the contract drawing. Furnish the record of materials used in the following format:

MATERIALS DESIGNATION	SPECIFICATION	MANUFACTURER	MATERIALS USED (MANUFACTURER'S DESIGNATION)	WHERE USED

1.3 EQUIPMENT/PRODUCT WARRANTIES**1.3.1 Equipment/Product Warranty List**

The Contractor shall develop a warranty management plan which shall contain information relevant to the clause Warranty of Construction. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty

management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plan shall include, but shall not be limited to, the following:

- a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.
- b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.
- c. A list for each warranted equipment, item, feature of construction or system indicating:
 1. Name of item.
 2. Model and serial numbers.
 3. Location where installed.
 4. Name and phone numbers of manufacturers or suppliers.
 5. Names, addresses and telephone numbers of sources of spare parts.
 6. Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
 7. Cross-reference to warranty certificates as applicable.
 8. Starting point and duration of warranty period.
 9. Summary of maintenance procedures required to continue the warranty in force.
 10. Cross-reference to specific pertinent Operation and Maintenance manuals.
 11. Organization, names and phone numbers of persons to call for warranty service.
 12. Typical response time and repair time expected for various warranted equipment.
- d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.
- e. Procedure and status of tagging of all equipment covered by extended warranties.
- f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.3.2 Performance of Warranty Work

In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

Following oral or written notification of required construction warranty repair work, the Contractor shall respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.3.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.3.4 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

- a. Type of product/material _____
- b. Model number _____
- c. Serial number _____
- d. Contract number _____
- e. Warranty period _____ from _____ to _____
- f. Inspector's signature _____
- g. Construction Contractor _____
Address _____
Telephone number _____
- h. Warranty contact _____
Address _____
Telephone number _____
- i. Warranty response time priority code _____
- j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL
MAINTENANCE DURING THE WARRANTY PERIOD.

1.4 MECHANICAL TESTING AND BALANCING

All contract requirements for testing/adjusting/balancing shall be fully completed, including all testing, prior to contract completion date. The time required to complete all testing/adjusting/balancing is included in the allotted calendar days for completion.

1.5 FINAL CLEANING

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be replaced. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01780A**SECTION 01780A
CLOSEOUT SUBMITTALS****PART 1 - GENERAL:**

1.1. Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. The following shall be submitted in accordance with Section 01335 SUBMITTAL PROCEDURES FOR DESIGN BUILD PROJECTS:

1.1.A. SD-02 Shop Drawings:

1.1.A.1. As-Built Drawings are drawings showing final as-built conditions of the project. The final CADD as-built drawings shall consist of two sets of electronic CADD drawing files in the specified format, one set of Mylar drawings, and one set of the approved working as-built drawings.

1.1.B. SD-03 Product Data:

1.1.B.1. Not Applicable.

1.1.C. Warranty Management Plan: One set of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of warranty of construction. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

1.2. PROJECT RECORD DOCUMENTS:

1.2.A. As-Built Drawings: This paragraph covers as-built drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final as-built drawings. Working As-Built and Final As-Built Drawings: The Contractor shall revise two (2) sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings.

1.2.A.1. CONTENT: The working and final as-built drawings shall show, but shall not be limited to, the following information:

1.2.A.1.a. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.

1.2.A.1.b. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.

1.2.A.1.c. Changes or modifications which result from the final inspection.

1.2.A.1.d. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

1.2.A.1.e. Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures:

1.2.A.1.e.i Directions in the modification for posting descriptive changes shall be followed.

1.2.A.1.e.ii A Modification Circle shall be placed at the location of each deletion.

1.2.A.1.e.iii For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.

1.2.A.1.e.iv For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).

1.2.A.1.e.v For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.

1.2.A.1.e.vi For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.

1.2.A.1.e.vii The Modification Circle size shall be 12.7 mm diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.2.A.2. DRAWING PREPARATION: The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.2.A.3. COMPUTER AIDED DESIGN AND DRAFTING (CADD) DRAWINGS: Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings. The Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

1.2.A.4. FINAL REVISIONS: When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 5 mm high. All other contract drawings shall be marked either "AS-Built" drawing denoting no revisions on the sheet or "Revised As-Built" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

1.2.A.5. APPROVAL: Within 20 days after Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final CADD as-built drawings for that phase of work and submit two sets of blue-lined prints of these drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 10 days the Contractor shall revise the CADD files accordingly at

no additional cost and submit one set of final prints for the completed phase of work to the Government. Within 20 days of substantial completion of all phases of work, the Contractor shall submit the final as-built drawing package for the entire project. The submittal shall consist of two sets of electronic files on compact disc (read-only memory CD or DVD), one set of mylars, and one set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CADD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final as-built drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.3. WARRANTY:

1.3.A. Warranty Management Plan: The Contractor shall develop a warranty management plan which shall contain information relevant to the clause Warranty of Construction in this contract. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plans shall include, but shall not be limited to, the following:

1.3.A.1. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, Subcontractors, Manufacturers or suppliers involved.

1.3.A.2. A list for each warranted equipment, item, feature of construction or system indicating:

1.3.A.2.a. Name of item.

1.3.A.2.b. Location where installed.

1.3.A.2.c. Warranties and terms of warranty. This shall include one-year over all warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.

1.3.A.2.d. Starting point and duration of warranty period.

1.3.A.2.e. Summary of maintenance procedures required to continue the warranty in force.

1.3.A.2.f. Organization, names and phone numbers of persons to call for warranty service.

1.3.A.2.g. Typical response time and repair time expected for various warranted equipment.

1.3.A.2.h. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.

1.3.A.3. In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

1.3.A.4. Following oral or written notification of required construction warranty repair work, the Contractor shall respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.3.B. PRE-WARRANTY CONFERENCE: Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting.

1.3.C. CONTRACTOR'S RESPONSE TO CONSTRUCTION WARRANTY SERVICE

REQUIREMENTS: Following oral or written notification by the Contracting Officer, the Contractor shall respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the construction warranty within the timeframes specified, the Government will perform the work and back charge the construction warranty payment item established.

1.3.C.1. First Priority - Code 1. Perform onsite inspection to evaluate situation, and determine course of action within four (4) days, initiate work within 6 days and work continuously to completion or relief.

1.3.C.2. Second Priority - Code 2. Perform onsite inspection to evaluate situation, and determine course of action within eight (8) days, initiate work within fourteen (14) days and work continuously to completion or relief.

1.3.C.3. Third Priority Code 3. All other work shall be initiated within 30 work days and work continuously to completion or relief.

PART 2 - PRODUCTS: (NOT APPLICABLE)

PART 3 - EXECUTION: (NOT APPLICABLE)

-- END SECTION --

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE <i>(Read instructions on the reverse side prior to initiating this form)</i>	DATE	TRANSMITTAL NO.
---	------	-----------------

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____
-----	-------	--------------	---

SPECIFICATION SEC. NO. <i>(Cover only one section with each transmittal)</i>	PROJECT TITLE AND LOCATION	CHECK ONE: THIS TRANSMITTAL IS FOR <input type="checkbox"/> FIO <input type="checkbox"/> GOV'T. APPROVAL
--	----------------------------	--

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED <i>(Type size, model number/etc.)</i>	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. <i>(See instruction no. 8)</i>	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE	VARIATION <i>(See instruction No. 6)</i>	FOR CE USE CODE
				SPEC. PARA. NO.	DRAWING SHEET NO.			
<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>e.</i>	<i>f.</i>	<i>g.</i>	<i>h.</i>	<i>i.</i>

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated. _____ NAME AND SIGNATURE OF CONTRACTOR
---------	---

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED <i>(List by Item No.)</i>	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE
---	--	------

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A --	Approved as submitted.	E --	Disapproved (See attached).
B --	Approved, except as noted on drawings.	F --	Receipt acknowledged.
C --	Approved, except as noted on drawings. Refer to attached sheet resubmission required.	FX --	Receipt acknowledged, does not comply as noted with contract requirements.
D --	Will be returned by separate correspondence.	G --	Other (<i>Specify</i>)

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

Contractor - Furnished Design Documents Submittal Register			Contract Title & Location:		
			Contractor:		Contract Number:
Submittal Identification Nº.	NAS Activity Code	Description of Document (s)	Contractor Submittal Date	Government Action	
				Receipt Date	Construction Clearance Date

On Form 100, this space could be used for graphic scales and Architect or Engineer's seal, if required.

U.S. AFG

FISCAL YEAR

100 MM

6 MM

PROJECT NUMBER

INSTALLATION LOCATION

TY: 05

PDC: XXXXXXXX

TITLE OF PROJECT

SHEET NAME

REQUIRED FOR TABLE OF CONTENTS SHEET ONLY

SIGNATURES AFFIXED BELOW INDICATE OFFICIAL RECOMMENDATION AND APPROVAL OF ALL DRAWINGS IN THIS SET AS INDEXED ON THIS SHEET

REVIEWED BY: *

TITLE: CHIEF, DESIGN BRANCH DATE:

APPROVED BY: *

TITLE: CHIEF, ENGR & CONST DIV. DATE:

42 MM TYP.

Sheet Reference Number:

X-0001

SHEET 1 OF 20

6 MM

36 MM

6 MM

G (* AS REQUIRED BY ENGR'G. CIRCULAR 1110-1-76) H

2

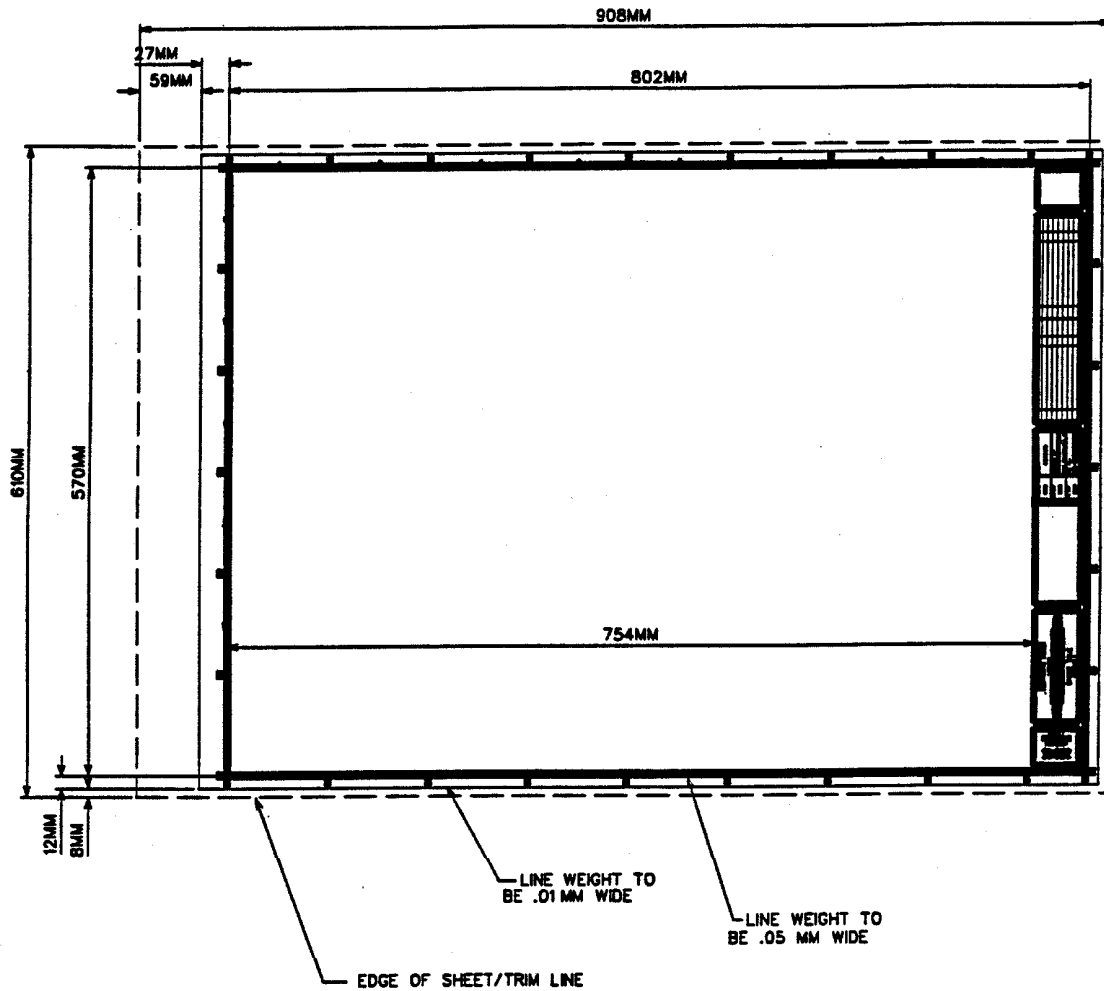
1

Figure 1 – sheet number/description; AED title block





FINISHED FORMAT SIZE



NOTES:

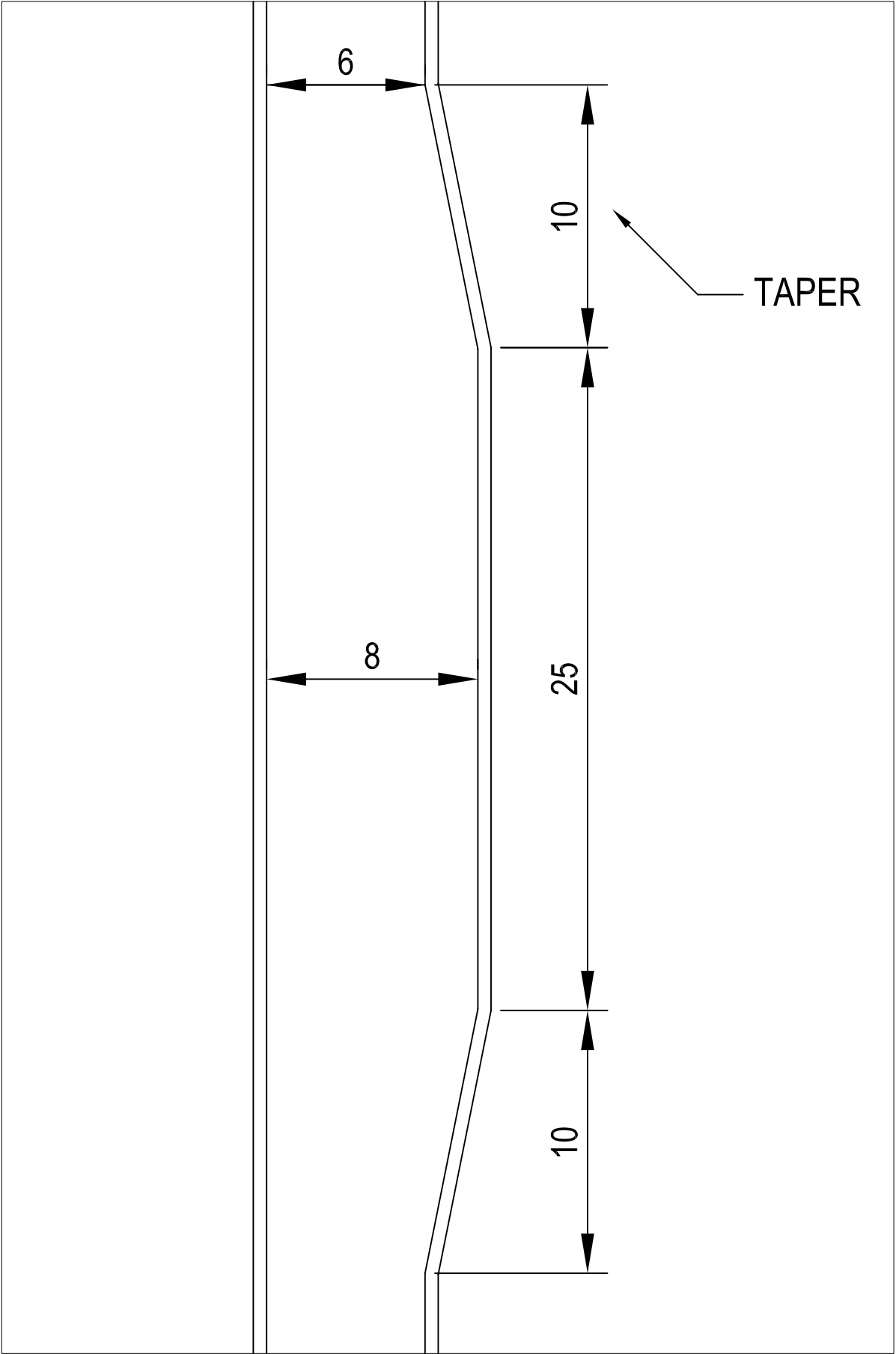
1. SEE FIGURES 6 THRU 9 FOR TITLE BLOCK DEFINITIONS.

ACTIVITY HAZARD ANALYSIS			
Contract No.		Project:	
Date:		Activity:	
PRINCIPAL STEPS		POTENTIAL SAFETY/HEALTH HAZARDS	
RECOMMENDED CONTROLS			
<i>Identify the principal steps involved and the sequence of work activities.</i>		<i>Analyze each principal step for potential hazards.</i>	
		<i>Develop specific controls to eliminate or reduce each hazard to an acceptable level of risk.</i>	
EQUIPMENT TO BE USED		INSPECTION REQUIREMENTS	
<i>List equipment to be used in the work activity.</i>		<i>List inspection requirements for the work activity.</i>	
		TRAINING REQUIREMENTS	
<i>List training requirements, include hazard communication.</i>			
Prepared by: Contractor's competent/qualified person(s) (Signature & Date)			
<p>This AHA has been reviewed by the designated AED COR and is acceptable for use on this project. This acceptance is predicated on satisfactory implementation in the field by the contractor and will be rescinded if the contractor fails to enforce the controls identified in this document and/or the requirements identified in EM385-1-1. This AHA will be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified person(s).</p>		<p>Name, COR (Signature & Date)</p>	

ATTACHMENT B

BYPASS TURNOUT

BYPASS TURNOUT



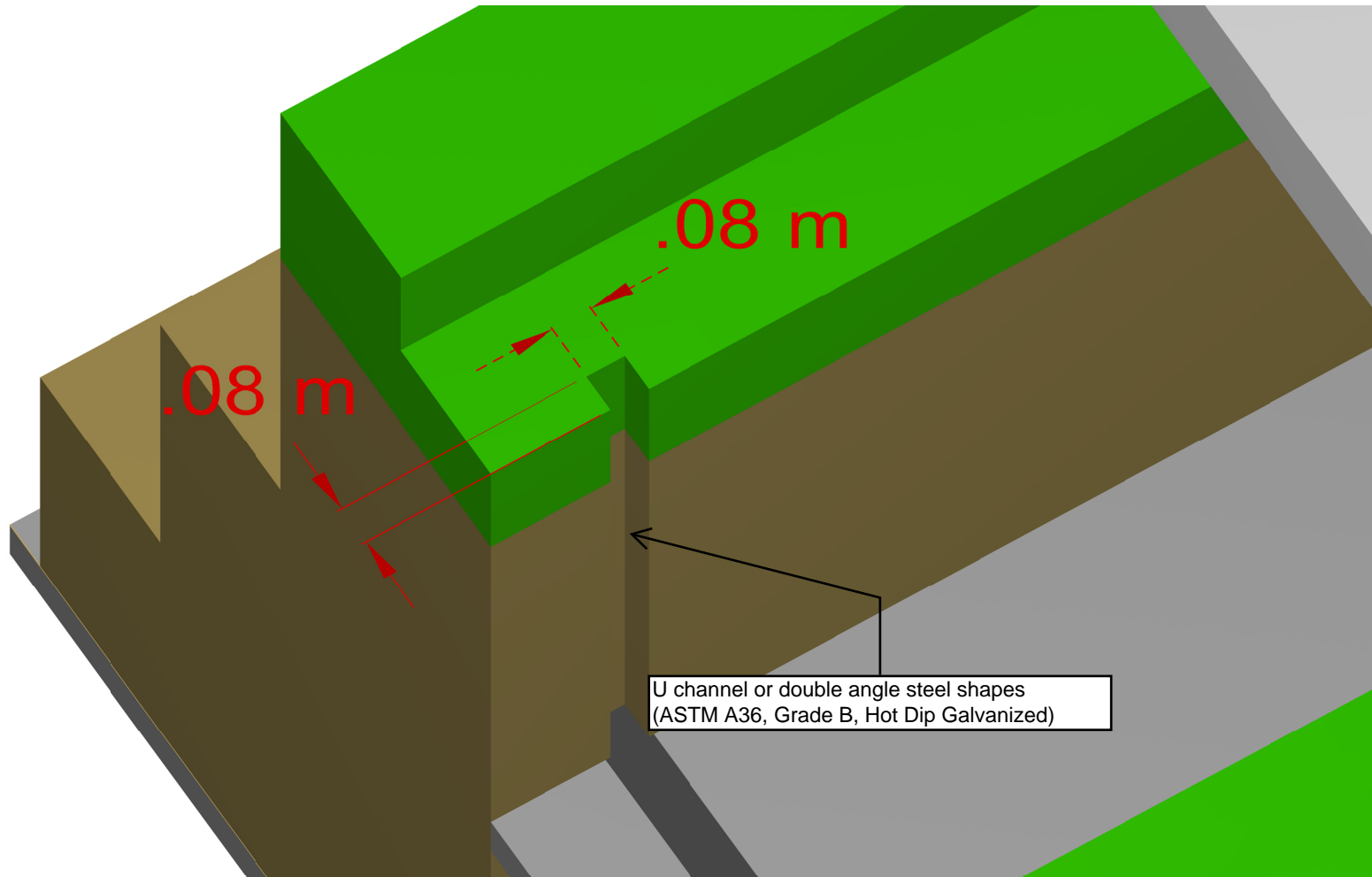
Attachment A

Culvert Debris & Trash Protection Device*

***Technical requirements & dimensions are shown for a 1.2m by 1.2m Box Culvert. The designer shall size the protection device for larger culverts accordingly so that the bar spacing remains the same (80mm max).**



01015 Culvert Debris & Trash Protection



ATTACHMENT B

Typical Roadway Section

**Islamic Republic of Afghanistan
Ministry of Public Works
Interim Road and Highway Standards**



PROJECT NO:		ISLAMIC REPUBLIC OF AFGHANISTHAN MINISTRY OF PUBLIC WORKS	
DRAWING TITLE:		INTERIUM ROAD & Highway Standard in Afghanistan MINOR ROAD CROSS SECTION	
DESIGNER:	ENGINEER:	CHECKED BY:	APPROVED BY:
DESIGNATION:	DATE:	DATE:	DATE:

ATTACHMENT A
PROJECT LOCATION MAP

